



Agriculture is the most healthy, the most useful, and the most noble employment of man.—WASHINGTON.

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OUR HINTS ON THE WORK FOR THE MONTH.

In our hints and directions on the work for each month, as plowing, sowing seeds, planting trees, &c., it will be observed that they do not, in all cases, appear to be adapted for the season. But when the wide extent of country is considered, to which these directions are presumed to apply, together with the variety of climates embraced, at a time, within its limits, it is obvious that discrepancies, in these respects, must unavoidably occur. For instance, in the southern parts of Florida, Louisiana, and of Texas, where frost seldom or never is known, the operations of planting, harvesting, &c., may generally be commenced at least a month earlier than in the northern parts of Carolina, Arkansas, and of Tennessee. Again, similar operations on the farm, in the southern parts of Virginia, Kentucky, and of Missouri, may be commenced a month or two earlier than in Maine, New Hampshire, Vermont, or in the northern part of New York.

Hence the necessity, in general directions like those under consideration, of adapting them to the most southern limits of the regions they are designed to be applied. If too early for the first of the month in which they are published, the sagacious husbandman can readily postpone them a few weeks, when nature and experience should alone be his guide.

WORK FOR MAY, NORTH AND WEST.

General Remarks.—Any work neglected to be done in April, or impracticable to be performed from the state of the climate, or the backwardness of the season, as directed in our last number, may be accomplished this month. *Deep spring plowing may be done, manures applied, various kinds of crops planted or sown, fruit trees and orchards manured and cleaned, lawns top-dressed, fences repaired, &c., &c.*

Felling Resinous Timber.—Any time during this month, or the next three months following, all kinds of pine, larch, and other resinous trees may be cut, as the pores of their wood will be filled with resin, which serves to increase the strength and durability of their timber. (See p. 23, of the current volume.)

Hauling and Securing Fuel.—As soon as your crops are all sown, and other business will allow you to attend to it, your fuel may be drawn, while dry, and stored in your wood sheds, or it may be neatly piled up, and covered over at the top with boards, in order to prevent future injury from wet.

Sowing Indian Corn for Soiling.—We cannot too often remind our readers of the great advantage of sowing corn for green fodder, where it is valuable, which is always the case in the vicinity of cities and the larger class of towns. By commencing the sowing the latter part of this month, and continuing the operation each successive week or ten days till August, a constant supply of choice food will be secured during the remainder of the season, when it will be most wanted. The natural grasses of the pastures, when closely fed, begin to give out in July; and if the season prove dry, they frequently continue short for several months. A comparatively small quantity of land, richly supplied with manure, finely prepared and cultivated, will yield an immense quantity of sweet, nutritious fodder during this time of drought. From the experience of our best dairymen, an acre of corn, thus cultivated, will supply ample food for four cows during three months. It may be fed from racks or mangers in the yard, or in the stables, if they are not too warm; or, it may be scattered from a cart upon the ground, after which the cattle may be admitted, where they will devour the whole—stalks as well as the blades. If the fodder be wilted a few hours in the sun, previous to giving it to the animals, it is believed to be more wholesome and less likely to produce hoven, or wind in the bowels.

Planting Corn as a General Crop.—This, if not attended to last month, may be done this, according to the directions given at p. 153 of our third volume; or at p. 82, vol. vi.

Sowing Broom Corn.—The best soil for this plant is similar to that required for maize. It should be rich, warm, and not subject to early frosts, like the "intervals," or "bottoms," of the Connecticut, the Mohawk, the Sciota, &c. The best crops are usually raised on a green sward, turned over as late as possible in the fall to kill the worms. But if the land be poor, it must be enriched by a liberal supply of well-decomposed farmyard dung, with additions of guano, plaster, oyster-shell lime, or poudrette. It should be planted as early as the 15th of this month, in hills, about two by three feet apart. If the seed be good, drop 15 or 20 of them into each hill, and cover them from an inch to an inch and a half deep.

When properly cultivated, and brought in good condition to the New-York market, broom corn, of the best quality, will sell for \$160 to \$250 per ton.

Planting Potatoes as a General Crop.—The sooner this is done the better, as early-planted

potatoes are considered more secure against the rot. For full and complete directions for planting and securing this crop, see pp. 155 and 156 of our seventh, and p. 55 of the current volume.

Sheep-shearing and Sacking Wool.—This should not be done sooner than the season will admit, as the sheep would be in danger of taking cold. Wool, intended to be sent to a distant market, may be put up and pressed in bales after the manner of cotton, or it may be crowded into sacks holding from 200 to 250 lbs. If designed to be shipped on a long voyage, it would be more economical to press it into square bales, as it would then occupy less bulk, and consequently effect a saving of freight. But in the interior of a country where conveniences for baling are not always at hand, sacks may be employed, made of 40-inch "burlaps," or 45-inch "gunny cloth," 7½ feet long. Each of these sacks may be made of a piece of cloth 5 yards in length, by doubling the ends until they meet, and sewing up the sides with twine.

The mouth of a sack may be next sewed to a strong hoop of wood or iron (diameter 25 inches for the burlaps, and 28 inches for the gunny cloth); then let down its body through a circular hole, two inches less in diameter than the hoop, cut in an upper floor of a building, or of a temporary scaffold erected for the purpose, where it can swing clear beneath. One man may then get into the sack, while another hands him the fleeces, which he should place in regular layers, pressing them down in the meantime, with his feet, until it is filled. After this, the sack may be slightly raised, the hoop disengaged, the mouth of the sack sewed up with twine, and the operation is complete.

Milking Cows.—Let care be taken that your cows are milked clean; the last milk is much the best; and besides, cows are often spoiled by careless neglect.

Kitchen Garden.—In the fore part of this month, all the early cucumbers, melons, cabbages, cauliflowers, lettuce, radishes, &c., which have not been taken out of the hot beds, should be removed, and planted in open ground. The seeds of all kinds of table vegetables, such as peas, beans, beets, carrots, onions, parsnips, and esculent herbs should be sown early. Tomatoes, egg plants, peppers, &c., can also be planted out.

Fruit Garden and Orchard.—All kinds of northern fruit trees that have not leaved out, may be transplanted, and spring innoculation may still be performed in the early part of this month. Strawberry beds may be planted, and last month's suggestions for pruning observed.

Flower Garden and Ornamental Grounds.—The borders of the flower garden should now be finished, and herbaceous perennials transplanted. Plant annual, biennial, and perennial flower seeds; also, bulbs and tubers. Transplant ornamental trees and shrubs and box edging early this month. Trim hedges and shrubs. Top-dress lawns. Put in order gravel walks.

Care of Implements and Tools.—An item of great importance to the husbandman, is to adopt, as early as possible, the best and most highly-approved farming tools and labor-saving machines, as much is lost by employing poor ones. Every im-

plement and machine should have a place, when not in use; and as soon as they are done with for the season, they should carefully be laid away and housed. This will not only save time and labor in hunting them up, but they will be in better condition when required again for use.

WORK FOR MAY, SOUTH.

General Remarks.—This is considered the most important month in the whole year, when we take into account the cultivation of the young growing crops; because much of the future labor will depend on the quality and quantity of the work done now. If it be well done, as it should be, the crops will not so soon become foul; and if much of it be done, the planter will be able to receive an earlier return.

Working Cotton Fields.—Young cotton plants must be cleaned out as soon as practicable after the first leaves are developed with the sweep cultivator and hand hoe.

Weeding Corn.—Keep your corn fields in good order, and free from weeds.

Cane Fields.—See that your cane fields are kept clean, and as soon as the plants have grown about 18 inches high, a small quantity of earth should be drawn towards them; and in the course of the two succeeding dressings, a bed should be formed for them five or six inches in depth.

Tobacco Plants.—The earth around these should frequently be stirred with the plow, cultivator, or hoe, and kept free from weeds. As soon as the plants are sufficiently large, they should be primed, topped, suckered, and wormed.

Harvesting Winter Grain.—Most of the winter grain that was sown in October last, will require harvesting this month. That to be used for feeding stock should be cut just before it begins to turn yellow; but that left for flour should be cut when the grains are in the milk.

Silk Cocoons.—Silk worms will have wound their cocoons from the 1st to the 20th of this month. Those you wish to reel, may be left in the hot sun a day or two, or they may be exposed a few hours in an oven or kiln, heated sufficiently warm to cause bees' wax to melt. Those intended to produce eggs for the next crop, must be selected and placed on sheets of moist paper, in a cool, dark room. From 100 to 120 pairs of millers will produce an ounce of eggs. Each female lays from 300 to 500 eggs, averaging about 350. An ounce of eggs contains about 40,000. If well saved from good millers, and safely kept, they will nearly all hatch and produce good worms. Our climate is admirably adapted to the production of the silk worm, as is shown by the fact, that while an average of 30 to 60 per cent. of the worms are lost in Europe, from climate, food, and disease, scarcely five per cent. are lost in this country.

Kitchen Garden.—Plant endive, shalots, lentils, peppers, and generally all that is recommended for April. "The old gardeners of the country," says Mr. Dinn, "pretend that nothing will come to perfection if sown in this month." But, from sixteen years' experience at New Orleans, he feels justified in stating that the plants require only to be set further apart, because they grow more vigorously on account of the increased flow of the sap.

Fruit Garden, Shrubbery, &c.—Keep the earth loose and clean around your grape vines. Plant and water cuttings of Cape jasmines.

EFFECTS OF CASTRATION ON ANIMALS.

THERE are several circumstances and principles connected with the castration, or emasculation, of domestic animals, which, if duly considered, and judiciously carried out, doubtless, would have an important bearing on the economy and improvement of our dairies, the quality of our meats, and perhaps, in the staple of our wool; and it is in reference to these questions that the following hints are offered, not as established facts, however, but for the purpose of eliciting attention and further inquiry on the subject:—

It is well known that the bull, when emasculated at an early age, partakes of a very different form and character from that which he possesses when left uncastrated. He grows to a larger size; his neck, head, and horns are of a different shape, his hair is finer and less curly on the head; his meat, when cooked, is more tender and savory; and his disposition becomes almost entirely changed. Similar features may also be noticed in the castration of the horse, the ram, the boar, the cock, the dog, the cat, the squirrel, &c. From the observations of a distinguished veterinary surgeon, of the British army, who practised ten years in India, it appears that the hair of the horse, when cut in cold weather, ever after is rough, and changes from a stiff, uniform calibre, to one that is irregular and fine. It also increases in number as well as in length. The hoofs of the horse, after castration, he says, become more solid and firm. He further affirms that, if a young stallion has a tendency to have a "bull neck," it may be checked by castration; and that geldings generally grow larger, with the same keeping, than studs, and are more gentle in their disposition.

Similar facts are also observable, as far as our knowledge extends, in the "spaying" or castration, of females. For instance, the effects of castration upon the cow, for 15 or 20 years' experience in France, seems to be that it increases the product of her milk one third, at an age of six or eight years, after which there is generally a regular and constant supply until death; that the milk is richer than that of the cow in her ordinary state, and consequently yields more butter, which is of a superior flavor, taste, and color; and that, when the milk fails, or one wishes to part with her, the cow has a greater disposition to fatten. Furthermore, as the cow will not procreate, all the accidents attending gestation, parturition, &c., are of course avoided; and to those who keep cows for milk, only, and to whom the loss of several months, in being dry and in suckling their calves, is of no small moment, an operation of this kind upon these animals would greatly increase their value.

The effects of castration upon the common dunghill cock must be familiar to all who have observed the large capons often exposed for sale; and we have reason to believe, that, if a similar operation were performed on other kinds of domestic poultry, both male and female, a corresponding advantage would be gained.

New York, April, 1849.

•B.

THE COW—HER DISEASES AND MANAGEMENT.— No. 12.

Milk Fever.—This is one of the most dangerous diseases to which the cow is heir to, and unless timely relieved, very soon proves fatal. It is caused by whatever obstructs perspiration, and accumulates the blood internally; hence, it may be produced by the application of cold air, by laying on the cold ground, or by giving cold water immediately after calving; and these causes will naturally produce this effect, from the open state of the pores at this time, and from the external parts being so wide and relaxed after that operation. Cows in high condition are more subject to this complaint than others, especially if they have been kept up for some weeks before calving.

The symptoms begin to show themselves the first, second, or third day after calving, but most frequently the first day, and that often as early as two hours after the delivery. They may be known by the cow shifting about from place to place; she frequently lifts up her legs and then sets them down again; discovers a wild appearance in her eyes, and sometimes blares, as if wanting her calf. At this time, she is very ready, on a person going up to her, to give him a poke. As the disease progresses, there ensues a quick motion in the flank, and if confined in a stall, she begins to stagger from side to side, with open mouth, from which issues a clear water, and her tongue, at this time, is thrust out a considerable length. After staggering some little time, she falls down, but recovers herself again, and continues to do so until she is no longer able to get up, and seems entirely to lose the use of her limbs. She then throws herself on her side, with her head inclined to her fore ribs. The body, at this period, sometimes begins to swell; and when the malady is still further advanced, the extremities, and the roots of the horns and ears feel cold, the latter being covered with a clammy sweat. What passes through the animal is black and dry; she frequently strikes with her fore and hind legs; her eyes appear dull and heavy; and her breath emits a faint and sickly smell. Her restlessness gradually increases; she is covered with cold sweat; her extremities are seized with a shivering; the pulse becomes irregular, and death terminates the scene.

If the cow be in very high condition, she should first be bled, to the quantity of two to three quarts, if she can bear it, and the following mixture given as soon after as possible, at one dose, in three quarts of gruel in which two ounces of soap have previously been dissolved:—

Epsom salts, 1½ lbs.; althæa ointment, 3 oz.; saltpetre, ¾ oz.; powdered fenugreek, 1½ oz.; powdered mustard seed, 1½ oz.

As soon as this medicine is given, the cow should be "raked," (the removal of the dung from the rectum,) and the following glyster administered in two quarts of water gruel:—

Common soap, 1 oz.; common salt, a handful; sweet oil, ¾ pint.

The soap being first dissolved in the gruel, mix the whole together, and inject, with a common glyster pipe and bag, into the rectum. As soon as the drink and glyster are given, the animal, if

she lies on her side, must be turned on her belly, and well bolstered up with straw, to prevent her from getting into her former situation; for, by lying in that position, the swelling of the body will increase, nor will the medicine operate so soon as when resting on her belly; neither in this posture should she lie too long, but be turned over occasionally, to prevent her limbs getting cramped. This change of position will also assist in expelling the wind, as well as in promoting the operation of the medicine. It will likewise be useful to rub the limbs and body two or three times a day.

Whatever else is given the animal in this disease, should be administered with caution; for she swallows with some difficulty, and is in danger of being choked; in consequence of which, there should be a proper interval between each hornful of medicine. In six or eight hours after taking the above, the following dose may be repeated every six hours until a change for the better takes place, to be given in a quart of ale or strong beer, with a little allspice:—

Gum myrrh, ¾ oz.; powdered valerian, ¾ oz.; assafoetida, 3 drachms; saffron, 3 drachms; camphor, ¾ drachm; opium, ¾ drachm; mustard seed, ¾ oz.; saltpetre, ¾ oz.

When the disease is turned, and the cow begins to eat and drink a little, which is always a sure sign of her recovery, and generally occurs within twenty-four hours after the attack, (if she survives at all,) and sometimes sooner, the following medicine may be given, at one dose, in a pint of mild ale, or in a strong decoction of camomile tea, to be repeated once or twice a-day, if necessary, till she recovers:—

Camphor, ¾ drachm; saffron, 3 drachms; saltpetre, 3 drachms; gentian, ¾ oz.; valerian, ¾ oz.; Jesuits' bark, ¾ oz.

After two or three doses have been administered, if the animal mends very fast in her appetite and strength, one every other day may be sufficient. Should great debility ensue after the fever has disappeared, which is sometimes the case, an ounce of isinglass, boiled in skim milk, may be given once or twice a-day, which will also be found extremely useful in assisting to strengthen the relaxed system.

If, however, after forty-eight hours, the cow should still be incapable of getting up, although her appetite may be good, and she appears lively, the following "charge" should be laid on her loins, as the weakness exists more in those parts than in any others; for she can generally raise herself on her fore legs, while her hinder parts seem useless:—

Take black and Burgundy pitch, ½ lb. each; oxycroceum and Paracelsus plasters, 2 oz. each; bole Armenian and dragon's blood, 1 oz. each.

To be melted over a slow fire. This charge should be spread while hot, but not so hot as to scald, all over the loins and rump. Some saddler's stuffing or wool should be stuck on it, to keep it in its place. As soon as this is completed, the cow must be got up, and put into a sling, made of sacking and ropes, so that she can feel the floor with her legs, which are to be well rubbed two or three times a-day. In this situation, she must remain until she can stand of herself, and get up without

the aid of the sling, which will generally be the case in two or three days.

Should the cow remain costive, from the continuance of the fever, which is sometimes the case, for several days, doses of one half of the preceding purgative may be repeated at proper intervals, until a passage is procured. Moderate bleeding and purging, before calving, with suitable food, will generally prevent this disease. But when this has been done, and the complaint comes on, the subsequent quantity of blood to be drawn, and the doses of medicine given, must be correspondingly diminished.

During the continuance of the fever, the cow requires little or no food; but if any is given her, it should consist of warm water or water gruel, a hornful of which may be occasionally administered, if she will not drink it of her own accord; and whenever she seems inclined to eat, bran, Indian meal and malt mashes are most proper, with now and then a little sweet clover or other hay, laid before her in small quantities at a time, which should be gradually increased till she can eat her usual allowance, and her stomach is capable of bearing it. But over-loading the stomach should at all times be avoided, as disagreeable consequences are liable to ensue therefrom.

REARING CALVES—REPLY TO REVIEWER.

In noticing the remarks of Reviewer, at p. 246, in your seventh volume, on an article previously written by me, on the "Management of Calves," I have been led to address you again on the subject. Notwithstanding his general display of good sense, I am still of the opinion that the smallest calves invariably grow up to the finest animals; and I venture to say, that, what he would call "a runt of a calf," when fully grown, would far exceed one of the same breed, that was the largest and the finest looking when first dropped from the cow.

I am also convinced that raising calves on the richest food, neither improves their symmetry nor their quality, only to the eye of an inexperienced person. No reasonable man expects to see a lot of store cattle fit for the butcher. Still, I am willing to admit that an animal forced from its birth until five years old, will add much to its size, and excite the wonder and admiration of judges and spectators on show grounds; but I cannot admit that such an animal is a profitable one. I am certain that many a breeder, by adopting this *forcing system*, has not only ruined his reputation, as a breeder, but has actually lost money, even when his animals have been sold at high prices. The kind of food consumed, and the time and care required for such an animal to develop itself, costs far more than such a breeder is willing to place to its debit. Nor can I reconcile myself to a large beast of any kind for profit. I will appeal to any practical breeder, who has tried the experiment of raising fat heifer calves, whether they have proved the best milkers.

Again, flesh will very much diminish the milk vessels in the early stage of their growth, from which, I feel assured they will never recover; but when a cow has been economically brought up, and the milk vessels have once been fully developed, they will never deteriorate. Such a cow

will hold out much longer than the forced animal, and will give an increased quantity of milk. I hope Reviewer will try this, and then state the result of his experiment. On the other hand, a forced bull, after three or four years old, generally becomes useless for service.

The fashion, of late, for overgrown animals, has been so ragingly prevalent, that symmetry and quality have been very much overlooked, and such breeders now find themselves in a labyrinth, surrounded by a coarseness, raggedness, hardness, and shapelessness, in their animals, from which they cannot extricate themselves. I would advise such breeders to dispose of their stock, and commence a new career, by selecting a herd possessing symmetry and quality, and let size evaporate in the atmosphere with the rest of the grasses.

I was very much amused at a large calf shown last fall, at the State Fair at Buffalo, called by the owner a shorthorn. When he walked, you might have seen his shoulder blades work as loosely as possible above his crop, which was as hollow as you can imagine. He had an exorbitant paunch, was coarse in the bone, narrow at the hips, and his carcass was covered with flabby flesh of the very worst quality. Had I been a shorthorn man, I would have preferred a Buffalo amongst my herd. For then, I would have had something extraordinary. This calf was sold for \$100, and the owner was very much *offended* because he did not gain the first premium. But the judges had too much sense to notice him. He had been forced the whole of the summer entirely for the show, and to sell. It must have been an inexperienced farmer that purchased this animal, and not a shorthorn breeder. I think he will have some difficulty in disposing his offspring; and I should like to see this farmer and the calf together, after he has wintered him on hay, so that he might point out to me his beautiful symmetry. As I have said before, it takes all kinds of animals to make a world. Therefore, there must be *large calves* as well as *great men*.

W. H. SOTHAM.

Black Rock, N. Y. Feb. 18th, 1849.

EXPERIMENTS WITH POTATOES.

For several seasons in succession, a few years ago, we tried various experiments on our farm, in the cultivation of potatoes; one of which was for the purpose of ascertaining which was best and most economical, to plant cut tubers, small potatoes, or those of large or medium size. It would take a longer article than we now have time to write, to give all the particulars of these experiments; but the result was, either cut potatoes or small ones, produced as great a yield, and as large tubers, as medium-sized or large seed, except when the season was rather a wet and very growing one; and then, the latter produced the largest crop. The only additional value which we found in large-sized tubers over small ones, was, that the decomposition of the former produced food for the growing crop. But if the season proved rather dry, than otherwise, the seed would not rot; consequently it afforded no advantage to the growing crop over small seed. Judging from these experiments, all that is necessary to grow a good crop of potatoes, is, an eye, with sufficiency of the tuber attached to

cause it to sprout ; a good soil, or one well manured, and a growing season.

These remarks are made with reference to the absence of the rot. While this is prevalent, we think it safest to rely exclusively on planting the whole tuber, which should of course be sound, and of medium size. At the time of planting, put about a pint of oyster-shell lime directly on the seed, and then cover. All who have adopted this method, so far as we have heard, have not only been exempt from the rot, but have grown good crops of a superior quality.

MINER'S PATENT EQUILATERAL BEE HIVE.

The prominent advantages of this hive are the ease of managing the bees in the boxes within the supers. By a simple and original contrivance, all the trouble and danger of drawing out boxes from chamber-bored hives is obviated, and the bees are not aroused nor excited in the least. The beaded bottom board is another feature of advantage ; and the manner of giving ingress and egress, on all sides, during the summer season, and the manner of let-

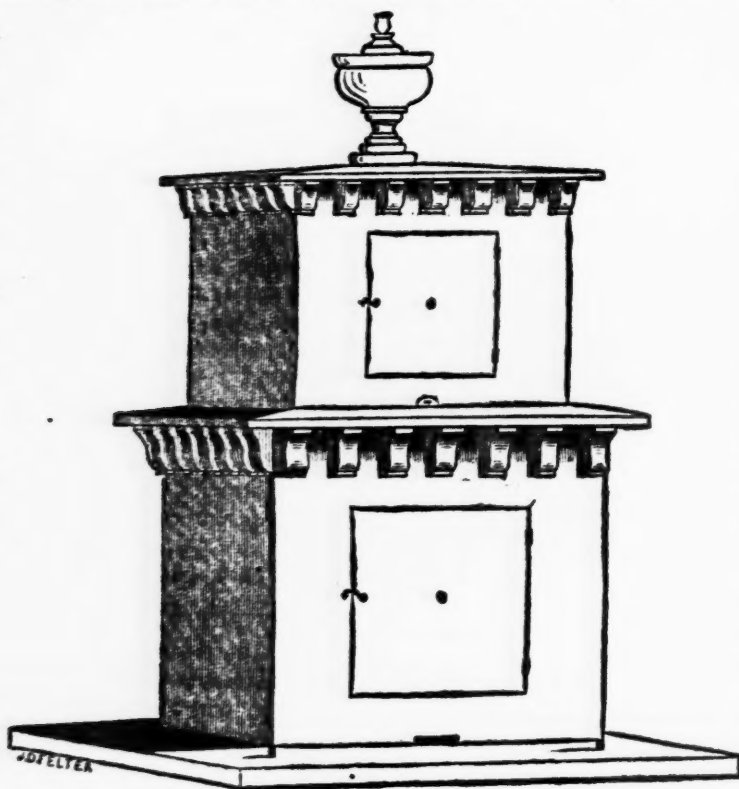


FIG. 36.

ting the hive down to pass the winter, with two small openings only, for the use of the bees, one in front, and the other in the rear, &c., with other advantages that are of great importance, together with its architectural beauty, commend it to the consideration of the public. For prices, &c., see advertisement at p. 167 of the present number.

THE LANGUAGE OF NATURE.—The pages of the bright volume of Creation, that are daily and hourly unrolled before us, are "written," to use the impressive words of Lord Bacon, "in the only language which hath gone forth to the ends of the world, unaffected by the confusion of Babel."

ADULTERATION OF FOOD.—No. 11.

ALTHOUGH not considered, strictly speaking, as articles of food, there are several liquors, or drinks, employed in domestic economy, in which adulterations are practised by the manufacturers and vendors, that we shall next endeavor to point out, with the view of putting our readers on their guard, and checking, in some measure, the evils attending this nefarious traffic.

Cider.—This beverage is frequently mixed with various substances for improving the color ; but as these are generally innocuous in their character, it is not deemed of sufficient importance to notice them here. After being kept some time, or when it has been fermented in too high a temperature, cider contains such a quantity of acetic acid, that it cannot conveniently be drunk, unless some means be taken to get rid of the excess of acid. This is usually done by the addition of lime, chalk, or pearlashes, which are comparatively harmless ; but the worst of all frauds practised on this drink, is the application of litharge, ceruse, or sugar of lead, for the purpose of correcting acidity. These substances are all poisonous, and the reader need not be told that when taken into the stomach, they are most deadly in their effect.

Porter, Ale, and Beer.—These fluids, perhaps, as a prepared beverage, are the most general in use, and, indeed, when made exclusively of malt, hops, sugar, and water they become, at once, as expressed by M. Dumas, "a healthful, refreshing, and even a nourishing drink ;" yet, it is much to be regretted that they should be subject to more heinous and more wicked adulterations than any other articles in commerce, notwithstanding stringent laws have been enacted in various countries to check these frauds and punish the offenders.

We think we can no better describe this wholesale method of administering slow poisons, than by transferring to our columns the following narration supposed to have been related by an old, ruined, broken-down grogseller, to an audience collected in a low, drinking house :—"In the first place," said he, "the brewer adulterates to save his malt ; then the publican, (vender,) adulterates it to increase its quantity. His business is to make one butt of beer into two, aye, and sometimes three. Ha ! ha ! Now, how do you think he does it ? He deluges it with water ; then, of course, it is so weak and flat, that no one can possibly drink it. It wants alcohol, or spirit, in it ; it wants the bitter flavor ; it wants pungency ; it wants age ; and it wants froth. All these are supplied by adulteration. Cocculus indicus, henbane, opium, and Bohemian rosemary are used instead of alcohol. These are all poisons ; and the Bohemian rosemary is of so deadly a nature, that a small sprig produces a raving intoxication. Ha ! ha ! That's good so far ! Then aloes, quassia, wormwood, and gentian supply the place of hops, and give bitterness to the

* * * * broth. Ginger, cassia buds, and capicum produce pungency. Treacle, tobacco juice, and burnt sugar give it color. Oil of vitriol, (sulphuric acid,) not only makes it transparent, but also imparts to it the taste of age. So that, a butt so doctored, immediately seems to be two years old. I need not tell you what sort of a poison oil of vitriol is. I don't want to suggest the means of suicide. Ha! ha! But when the beer has gone so far, it wants the 'heading'—that froth, you know, which all fancy to be a proof of good beer. Alum, copperas, and salt of tartar, (sub-carbonate of potassa,) will raise you as nice a 'heading' as ever you'd wish to dip your lips in. * * * But there's a dozen other ingredients that go into the stuff you lap up so pleasantly, and pay for as beer. What do you think of extracts of poppies, coriander, nux vomica, black extract, (extract of cocculus indicus,) Leghorn juice, and bitter bean? But all these names are Greek to you. They ain't to the publicans though. Ha! ha! Why, half the poor people that go to the lunatic asylums are sent there by the poison called beer."

Beer or porter, which is entirely free from drugs, and has not been in the hands of those who are willing to sacrifice the health and lives of their fellow beings for the sake of adding a small amount to their yearly gains, when taken in moderate quantities, merely invigorates and bestows a generous tone to the constitution, without producing that degree of lassitude or prostration, accompanied by headache, that invariably follow the drinking of the spurious fluid.

AGRICULTURAL TOUR SOUTH AND WEST.—No. 5.

Visit to the Plantations of Louisiana.—Directly after leaving Baton Rouge, down the Mississippi, we pass a long reach of uncultivated wooded tract, belonging to Mr. John McDonough, of New Orleans, who, like many other land misers in this country, appears to buy to keep—not to cultivate. Then comes the plantation of the lamented Mr. Chambers, who was recently crushed to death in his sugar mill, in consequence of entangling his coat in one of the ponderous iron wheels. To-day, (December 15th,) I noticed a gang of negroes gathering cane from the windrows, and carting it to the mill. No cane is to be seen standing here, having all been cut for fear of frost.

The next plantations we meet with, are those of Col. S. Henderson, Madame Williams, and of Col. Philip Hickey. The latter gentleman has raised sugar upon his place thirty-five years. In 1817, his father sold his crop of sugar for 11 cents per pound, and his cotton for 30 cents. On the 19th of October, 1813, the frost killed all his cane. Sugar was worth, that year, 12 cents per pound. In 1814, he was offered two pounds of cotton for one of sugar, but while loading his boats they were pressed into the surface of Uncle Sam, and he lost the sale. Had the bargain been consummated, he would have realized 30 cents for his cotton, which would have made him 60 cents per pound for his sugar. Col. Hickey is of opinion that bagasse, (the refuse stalks of sugar cane after they have been ground,) is unfit for manure until it has been rotted a great number of years. The best way to dispose of it he thinks is to use it as fuel.

A couple of miles below, is the plantation of F. D. Conrad, Esq., of which I shall have much to say hereafter. In front of his house is an extensive batture. A batture, is a recent formation of land by deposit from the muddy water of floods, until it gradually rises so far above low-water mark as to make good pasture land, and at length is inclosed by a levee for cultivation. Mr. C. has some 70 or 80 head of horned cattle, among which are some very good shorthorns for this part of the country, though not at all to be compared to this breed at the north. He also has a flock of some 150 sheep that are much above the average quality of the south.

In his lawn in front of his house, Mr. C. has had the good taste to plant specimens of all the forest trees native to his region, among which I noticed the live oak, the water oak, the willow oak, the white oak, the yellow oak, the chincapin oak, the cypress, the sycamore, (Platanus,) red elm, slippery elm, sweet gum, (Liquidambar,) cotton wood, pecan nut, white ash, hackberry, and many others. To these might be added the pride of China, now almost ever present upon every plantation of the south.

About one half of the planters along my ride to-day have done grinding, (or, "rolling," as it is most commonly called,) their cane, while others have suspended operations on account of the long-continued rains that have fallen of late.

I passed the night with Mr. William B. Walker, son-in-law and partner of Mr. Johnson, whom I mentioned as having abandoned his cotton lands, and put his negroes to raising sugar. Mr. W. has great faith in the opinion that bagasse cannot be disposed of in any way so economically as in the chimneys. He thinks that manure is an injury to his land rather than a benefit. Three years ago, he manured a field of sweet potatoes which all run to vines. The next year, he planted the same ground with sugar cane, which grew large and watery, and lodged so badly that the yield was not so good as upon the land adjoining, that never had been manured.

Noticing some very pure water on the table, and knowing that the river was very muddy just now, I inquired how it was purified. This I found was done by pounding a handful of peach kernels and throwing them into a cask of water, which soon caused it to settle. Almond kernels will effect the same.

At Iberville Church, December 16th, I saw the first growing cane on the estate of Dr. Pritchard, who came here from Connecticut about 30 years ago, and after much persevering toil, has finally got a very beautiful residence, and an excellent plantation, which is kept in admirable good order. For several miles below Dr. P., the coast is lined with small planters, a few of whom try to make a little crop of sugar with the old primitive horse mill, which is as great a contrast to the modern steam mill, as the people are to the modern class of sugar planters.

To-day, December 18th, I dined with Mr. Robert C. Camp, who keeps from 200 to 500 sheep for the purpose of feeding mutton to his people, which he finds a very healthy diet. The wool is quite a secondary object with him, as it is with nearly all

who keep sheep along the banks of the Mississippi, some of whom actually give it away for shearing, boarding the shearers in the bargain. Mr. C. has always found his flock healthy, except the foot rot. The sheep also increase very rapidly all along this coast, as they breed freely at all seasons of the year. It may seem surprising to the people east, that planters do not raise more sheep for mutton, even if the wool is not worth saving; but the fact is, mutton is altogether too light a diet for negroes. They want nothing more delicate than good, fat mess pork.

The next place below Mr. Camp's, that I visited, belongs to the Messrs. Tilotson. From the river to their sugar house, a distance of two miles and a quarter, they have laid down a cedar railway, at a cost of \$2,500, for the purpose of conveying their sugar and molasses for shipment. But whether it will prove profitable is a mooted point. Others have tried the like, and have given it up as a bad job. These gentlemen having been brought up in a hay country at the north, think that they cannot do without dry fodder here. So, every winter, they put in some 30 acres of oats, harrowing the ground smooth at the time of sowing, and after the oats are harvested, they obtain a spontaneous crop of crab-grass hay, which is very good, if mowed early, being the only kind of grass that they can cultivate with advantage.

After leaving Messrs. Tilotsons, December 19th, I passed several very fine places, among which were those of William Miner, John Miner, Henry Dogal, (one of the oldest, largest, and most successful sugar planters in the state,) Duncan F. Kenner, and of General H. B. Trist, brother to the much celebrated "Don Nicholas," of Mexican treaty memory. General T. is not one of those who think it useless to read agricultural works, because they happen to be printed at the north; but, on the contrary, his library is well stored with such publications as it is for the interest of the sugar planter to consult. SOLON ROBINSON.

THE DOG DISTEMPER.—We are asked by a correspondent for a recipe to cure the dog distemper. He might, with about the same propriety, require of us a prescription for the bilious fever or the cholera; for no two dogs are affected exactly alike, and what would be beneficial in one stage of the disease, would be injurious, perhaps, in another. Cooling, and slightly-purging medicines, as sulphur and castor oil, are in some cases best; in others, emetics and astringent medicines. Eleven years ago, the past winter, we cured a favorite spaniel bitch, by giving her from three to five grains of powdered antimony, night and morning; and three months ago, a noble Newfoundland pup of ours, seven months old, we cured in a week, by giving him sixteen grains of sulphur, mixed with a gill of warm milk, and administered night and morning. His food, during this time, was principally milk gruel. We advise our correspondent to consult his physician, or some reliable work on the diseases of the dog.

VIRTUES OF HEMP.—By its cordage, ships are guided, bells are rung, beds are corded, and rogues kept in awe.—*Cowles.*

POTATO DISEASE—HOW REMEDIED.

THE researches of intelligent and scientific men have been attended apparently with no success in their indefatigable pursuit for the causes of the potato rot. It is no part of our intention to examine the question at this time, but simply to make two or three of the most obvious and practical suggestions.

That the recent prevalent and fatal disease is the result of long-continued, artificial cultivation, cannot admit of doubt. That it has been, and still is, induced or augmented by the use of putrescent or barnyard manures, is in the highest degree probable. When the potato, like any other vegetable, is in a healthy condition, and sustaining a vigorous growth, there is no danger of disease from the presence of putrescent manures. But when the seed lies dormant in the earth before vegetation has commenced, and especially when the freshly-cut, moist, absorbent vessels are lying in immediate contact with the putrid, decomposing manure, there may, and under many circumstances, must be injury to the forthcoming plant; and again, when, from any cause, the progress of vegetation is arrested in the summer, or when growth has ceased in the autumn, the presence of these decomposing vegetable and animal matters may prejudicially affect these fleshy, sensitive tubers. The combined effects of this cause through successive ages of cultivation, have doubtless produced the present tendency to disease. Some atmospheric or other causes, which, under other circumstances would have been perfectly harmless, have kindled contagion in this susceptible mass, and sent destruction over every region where the plant is cultivated. Had it been in a healthy, vigorous condition, the cause which now produces decay might have fallen innocuous upon our fields; or like the cold blast which fastens a rapidly-wasting disease upon the consumptive man, it would serve only to freshen and invigorate a sound constitution. We believe there is a weakness or want of stamina in the whole potato race, and that there is no empiricism, no quick medicaments, which, acting like a vomit or cathartic on the human frame, will purge the vegetable system of what has become hereditary tendency to disease.

The cure for this must be gradual. Gentle tonics must be administered to the enfeebled plant, till it regains its former hardness and strength. These, we think, must be found principally in fresh, rich turf, or sod, (old meadows or pastures,) and in the exclusive use of saline manures. Keep from the potato field every particle of putrescent—organic manure—whatever has once been a portion of vegetable or animal, and which is now passing with more or less rapidity to decay, and which may possibly excite a corresponding sympathy from the sickly plant, and induce that, too, to join it in its rapid career of dissolution. Instead of these, use conservative manures, antiseptics, a part of whose nature it is to arrest decay or putrefaction. Salt, ashes from either coal or wood, lime, plaster, potash, bone dust, (which, if deprived of its animal matter by calcination, is nothing but a mineral salt,) old bricks and mortar, burnt clay, charcoal from peat or wood, marl or green sand may be used, either singly or in judicious combination, as the wants of the soil may require.

Let our farmers use good, uncut, sound seed, properly harvested and preserved, (of which more hereafter,) in wide drills, on land plowed deep and used for this purpose as seldom as possible; and make a proper application of some or all of the above-named manures, and especially of fresh lime, and we are morally certain of a mitigation of the potato rot, and probably, if the plan were universally pursued, of its final extinction. We hope that careful experiments will be made the coming season, by intelligent, observing farmers, and that they will hereafter communicate the results to the agricultural public. Perhaps some enterprising farmers may find it not only for the public interest but his own, to devote his fields to the rearing of the potato exclusively for seed; and that those who prefer to secure a larger crop by the use of fermenting manures, may sell or consume their entire crop, and thus avoid perpetuating decay, while they could secure a comparatively healthy seed for re-planting, from these carefully cultivated fields.

TO GROW FINE PEARS.

A CORRESPONDENT asks us the following questions:—Are iron filings or turnings, such as are found at the machine shops, suitable to be put around pear trees when little or no iron exists in the soil? How much should be applied to each tree? Is the application invariably beneficial?

The smaller the particles of iron applied, of course the better, as they decompose more rapidly. If a tree be about four years old, apply one quart; if full grown, eight to sixteen quarts, according to the size. Age and size of intermediate trees, will give the proper quantity to be applied between these extremes.

We deem it proper, however, to say to our correspondent, that many contend that iron applied as above does not benefit either tree or fruit. Iron slag is frequently put around the bodies of peach and other trees to guard them from the borer and other insects. But spent tan bark, broken stone, brick, or oyster-shell lime, we suppose, would be just as beneficial, as the action is merely mechanical. We wish our readers would make some experiments with iron filings or turnings, by applying them to fruit trees, and give us the result.

Are lime, charcoal, and ashes necessary? And if so, how much of each should be applied per tree?

If the ground be newly cleared of forest, it will usually contain potash and carbon enough to grow trees rapidly, and produce an abundance of fruit for a series of years. The same may be said of lime in a limestone region. But if these do not abound in the soil, they must be added. From four quarts to two bushels of each is enough to apply in any one year, depending on the age and size of the tree, and something, also, on the quality of the soil. Rotten and decayed wood will, in part, supply the place of charcoal and ashes; but the objection to it is, that it harbors grubs and insects, which are injurious both to tree and fruit; whereas, if ashes are unleached, they are destructive to most insects. The same may be said of lime, particularly in its caustic state.

In addition to the above, we will say to our correspondent, that it would be best to plow or spade

the earth around the trees, from the trunk to a little beyond the spread of the roots, before applying the above-named substances; and in doing this, be very careful not to injure the roots. The lime, ashes, &c., should be applied mainly within the circle of the extreme spread of the roots. Some portion, however, should be spread over the space between this and the trunk of the tree, and a little beyond the extension of the roots. He will, as a matter of course, understand, that, if his soil is not rich, he must dress it abundantly with peat, muck, and barnyard manure, or other fertilizing substances; and avoid taking a grain crop from the orchard when in bearing, or keeping it in grass over three or four years at a time.

DOMESTIC FISH PONDS.

WE are surprised our country friends do not pay more attention to the subject of fish ponds. Many of them have, on some part of their estates, either natural ponds, or small streams running through narrow valleys, which may be dammed at a trifling expense, and occupy but a comparatively small surface of land, and which, in many cases, is entirely worthless. These ponds should be fed with living streams or springs. The former are preferable, as they bring to the pond supplies of seeds, vegetables, roots, mud, &c., on which many of the finny tribes subsist. Aquatic plants, insects of various kinds, and infusoriae are also soon generated in the pond, and supply them with an adequate amount of food. Wherever this is deficient for the inmates, artificial food may be added, as bread, decayed grains, vegetables, meat, and the like. They may be soon taught to come at call, as by the tinkling of a bell, the blast of a horn, the beat of drum, or some musical instruments, and they will thus gather round their food as soon as thrown in. Many species of fish subsist entirely by suction, as the shad, the sucker, &c.; and it is policy to have separate ponds for such of these as may be wanted for use. Others, and by far the larger part, are predatory, and subsists almost entirely on other fish, as the pike, pickerel, &c., and these require a stock of smaller fry to supply them adequately with food.

Some experiments have been made with the shad and other salt-water fish in acclimatizing them in fresh water, and with entire success. A friend, who has several fish ponds on his estate on the Hudson, says they have bred with him the second year they were placed there. He occasionally supplied them with salt, when they would come about the deposit, and seem to enjoy the brackish water while the salt remained. When deprived of this, some of the original shad died; but, whether owing to this or some other cause, it is not certain. The younger ones seem to thrive in water entirely fresh. He has also domesticated several kinds of fresh-water fish, some of which have been imported from the European waters, as the carp and tench, but most of them are the best varieties from our inland lakes. Some of them have become such pets, and so familiarly answer to his call, that he has a great repugnance in preparing them for his table, though his friends to whom he frequently sends them, have no such scruples, and pronounce them delicious. He tells a good story of harness-

ing a nine-foot sturgeon, transferred from the river to his domains. He has properly adjusted straps, so fitted as not to interfere with his fins, to which a ring and trace is attached with a light cork buoy, so as always to be within reach. When disposed for a sail, he gets into his canoe, and quietly affixes a tow line to the buoy; and as soon as the sturgeon feels a jirk, off he darts with railway speed, and whirls him round and round the pond till exhausted, when he rolls over on his back and halts. He is then disengaged from the canoe, and after recovering from his sweat, bounds into the air six or eight feet, and off he darts for the quiet depths of the pond. Some honest Dutchmen, in his neighborhood, thinking this too good fun to be monopolized, tried the experiment with an untamed sturgeon in the Hudson; when, after a short time, he plunged downwards, drawing under the boat, men and all, who came nearly being drowned. They cursed their neighbor and his craft, and have never been known to attempt the experiment since.

PREMIUM BEEF.

THE following statement of the weights of Mr. Hadfield's cow and Messrs. Albergers' oxen, which received first premiums at the State Fair, held at Buffalo, in September last, have been furnished us by B. P. Johnson, Secretary of the Society:—

Albergers' Oxen.—Live weight, . . . 5,920 lbs.
Slaughtered weight, . . . 4,850 "
"Empire State," $\frac{1}{4}$ shorthorn; "Queen City," $\frac{3}{4}$ shorthorn.

Live weight of Empire State, . . . 3,040 "
Slaughtered weight, Quarters, . . . 2,006 "
Tallow, . . . 326 "
Hide, . . . 168 "

Total slaughtered weight, . . . 2,500 "
Shrinkage, 18 per cent.

Live weight of Queen City, . . . 2,880 "
Slaughtered weight—Quarters, . . . 1,940 "
Tallow, . . . 252 "
Hide, . . . 158 "

Total slaughtered weight, . . . 2,350 "
Shrinkage, less than 19 per cent.

Hadfield's Cow, Pink.—Live weight, . . . 1,696 "
Slaughtered weight, . . . 1,359 "
 $\frac{1}{4}$ shorthorn, $\frac{3}{4}$ Yorkshire.

Live weight, . . . 1,696 "
Slaughtered weight—Quarters, . . . 1,102 "
Tallow, . . . 169 "
Hide, . . . 88 "

Total slaughtered weight, . . . 1,359 "
Shrinkage, 20 per cent.

APPLICATION OF PLASTER AND ASHES TO MEADOWS.—If a meadow be manured only with plaster of Paris, the crops of grass will be at first greatly increased, but will afterwards diminish; for the silicate of potash which the soil contained, is soon exhausted by the rapid growth of the grass, and its further increase is checked. But if the meadow be strewed from time to time with wood ashes, which contain potash, the grass will thrive as luxuriantly as before.

SOUTHERN PLANTING—COW PEA—COTTON SEED, ETC.

IN your last number, Mr. Robinson, I perceive, notices the fatal effects, in Mississippi, of turning stock into pea fields. I have myself been a sufferer, in the loss of many valuable cattle, from the same cause. The usual hazard of feeding peas, however, may be much lessened by proper precautions. In the first place, I would recommend the *red winter pea* as least injurious; and planting on the same ridge with corn, to induce the vine to grow on the corn stalk, to prevent as much as possible the pods from coming in contact with the ground, which, in wet seasons, occasions them to rot very early, in which state they are *poison*. Before stock of any kind are turned into pea fields, they should be liberally fed with corn, lest they gorge themselves by too heavy a meal. They should have access to water at all times; and if the fields contain none, they should be driven to it thrice a-day. Salt freely twice a week, and rigidly exclude horses and cattle from pea fields in wet weather. Better that they are kept on short commons than feast on food so dangerous. If they swell, and are not speedily relieved by moderate exercise, they should be punctured with a sharp knife, between the hip and back rib, sufficiently deep to reach the cavity, which, nine cases in ten, will afford instant relief.

Hogs should never have access to pea fields, excepting those intended to fatten for slaughter. To stock hogs, they are almost as injurious as cotton seed, on both of which they will thrive for a time; but half that are thus fed, will die as warm weather approaches. In no country that I have ever seen, do hogs thrive so well as in the valley of the Mississippi; and nowhere that I know, can they be raised cheaper. The woods abound in mast, and the whole surface of the earth is filled with worms; so that only a sufficiency of corn, with a little attention to keep them gentle, is all that is required. I feed mine in the evening when they are penned, and turn them out in wood pastures in the day. I would prefer open, enclosed pastures, but for the *burs*. These, when they commence vegetating in the spring, hogs eat voraciously, and their rough outer covering forms an indigestible mass in the stomach, which destroys most of the young ones.

My crop of corn, last season, in Mississippi, nearly equalled that of the preceding year, whilst the cotton crop fell short about one fourth. Notwithstanding the fertility of the soil there, I shall, for the ensuing crop, manure every hill of corn, and if the result at all equals my expectations, I will give you the product. I have just closed the operation of hauling out manure on my fields here. Of cotton-seed, cow-pen, and stable manure, and ashes, I have taken out 570 four-horse wagon loads, and 2,840 cart loads. The latter are railroad carts, with bodies five feet long, four wide, and one foot deep. The ashes were obtained by setting fire to rafts deposited in my river low grounds, formed by the drift wood brought down by freshets. The supply is unlimited; and an experiment made last year with ashes, induces me to expect great results this season. W. HAMPTON.

Millwood, S. C., March 10th, 1849.

REVIEW OF THE FEBRUARY NUMBER OF THE AGRICULTURIST.

Adulteration of Food, No. 8.—Is there nothing that can escape this universal, all-pervading adulteration? Yes, I never have heard of any of these cheating chaps adulterating the Buffalo. And that is about the only human food that man can partake of, in these days of refined rascality, in a state of purity.

The Cow—Her Diseases and Management, No. 9.—These articles I have repeatedly commended. They are worth, in each number, the whole cost of the paper per annum. Though I think I can give a better remedy for the cure of wounds by goring.

First, let the gored animal die. Now take off the skin and take it to the tanner and sell it. Take the money and buy as many balls for cattle horns, as you have horns in the herd, and put them on, and bid the said horns to go and sin no more.

N. B.—It is always best to have one cow gored to death first, before putting on the balls, because "a burnt child dreads the fire."

Hydraulic Presses.—I want a little one for "family use." Can it be had? One that would do to press the lard out of a few hogs, or the wool into the sack, and a thousand-and-one domestic purposes? Have these presses ever been used upon cotton plantations? Or would they answer? Or is it a fixed fact that nothing but that great, cumbersome, wooden screw is ever to be used in baling cotton?

How to Preserve Eggs.—It will do it, I know, but to do it would be "book farming." So let them rot. They don't smell bad—till the shell is broken.

Disposal of the Filth of Paris.—I wish somebody would undertake to dispose of the filth of New York. But if it were all to be carried out of the city to-day, the population would be much less to-morrow, on account of the natural affinity of one body for another. "The farmer, standing in his barnyard, knee deep, in offensive accumulations, may proudly say, here is the source of my wealth, &c." And so can we, in almost any street of the city, in every rainy spell, say the same. And who is there that shall attempt to wean us from our idols, or disrapture natural affinities? "The refuse of a city may be considered as of five different kinds," says this writer, in speaking of Paris; but I assure him that it is "all of a sort" here. "The city fathers" always excepted—and the mud-removing contractors thrown in. "The gutters of Paris are washed out every morning." That practice would be objectionable in New York, on account of the danger of some citizen "possessing the right of suffrage," taking cold from damp streets. At Paris, the street refuse is removed to places of deposit to be decomposed. Here we let it lie and decompose the natural way. What's the odds?

Advantages of Thorough Draining will never be understood and appreciated, in this country, while the disposition is so rife, and the ability so great of acquiring so much land. From Canada to Mexico, and from the Atlantic to the Pacific, the inquiry is never made, How well I can cultivate my land, or how productive I can make it? but "Is land cheap there?" "How many acres can I

get?" Even in districts where the land cannot be cultivated without draining, as for instance, the sugar plantations on the Mississippi, "thorough draining" is but little understood. "Blind draining," I believe, is never practised there, or, at least, it was not when I was acquainted there some years ago. It will be a very long time before thorough draining will be done in this country. Indeed, except in case of gardens, or some choice spot, it will not pay. And until that is the case, it will never be done.

Cisterns and Matrasses.—How in the world a man of so warm a temperament as Dr. Phillips is, manages to keep cool, without ice, is more than I know. Fact is, he don't do it. As to cotton matrasses, I beg of you, Doctor, no matter what you are called for it, to keep up the fire until you kill every goose, or at least prove any cotton planter to be a goose, and a lame one at that, who would give six or eight pounds of cotton for one of feathers, to make a bed, instead of using his own staple, and with that make a more comfortable and healthy one that ever was made of feathers. As to "cotton comforts," a man is destitute of the comforts of life that is without such bedding; and in a very uncomfortable state of ignorance if he don't know how to make them, but still worse, knowing how, and not doing it.

Rough Notes by the Way, No. 6.—One of the things mentioned in this number of these pleasant notes, is a water ram. How singular it is that any man in these days of economy and labor, should continue to live on top of a hill, with a flowing spring at the bottom, some 80 rods off, from which he is lugging up by hand all his water for household purposes, and taking all his stock down to the spring to drink, when, for a sum not exceeding a dollar a rod he may have one of these excellent machines, sending the water into all his yards. It is always pleasant to visit such men as Captain Ingersol, who devote a portion of their means to so useful a purpose as resuscitating a "worn-out farm," and making a pleasant and agreeable residence.

Effects Produced under an Exhausted Receiver.—"Gunpowder will not explode." What a pity that "exhausted treasuries" have not the same effect upon gunpowder, for then "wars shall be no more," and men would learn the arts of peace, and how to multiply and replenish the earth instead of slaying one another.

Shell Marl.—Has it ever occurred to Mr. Hibbard, the reason why this marl will forward a crop of wheat so much more than any other manure? If not, then I may as well tell him that it is because the wheat must have lime to perfect itself, and probably the quantity in the land may not be sufficient, or if it is, this in the marl is in that particular state easiest assimilated to its wants by the wheat; and therefore is the very best manure that could be applied. Giving manure to plants is exactly similar to giving food to animals. If it is desired to fatten them, they must have food containing fatty matter. If it is desired to increase bones and muscles, they must have food containing phosphate of lime and casein. Just so should the farmer study to feed his plants, and, above all, to know why he should feed them.

Wire Fence.—"If Mr. Peters is correct," &c. Well he was not quite correct, for he made the fence too cheap; but even at the price that it would actually cost, it would be the cheapest fence, in many parts of the country, that could be built. It is a material so well calculated for fencing the great western prairies, that it is a wonder that it has not been adopted before this time, since people will persist in the foolish fashion of fencing, instead of insisting that every man should take care of his own stock; by which means every other man could sow and reap wherever he pleased, without being compelled first to build a fence strong enough for a fortification, to keep his neighbors' pirating cattle and hogs off of his premises.

The Table of Statistics of Productions of the U. S. in the February number of the *Agriculturist* should be carefully preserved for reference and comparison. And yet, with a soil almost free to all that choose to cultivate it, and thus not only procure gold, but all the comforts of wholesome food, and abundance of it, our population are up and off like frightened ducks, to hunt gold in California, where, if they live through more hardships in getting there, than often falls to the farmer's lot, it is greatly to be feared that some of them will die of starvation, while reflecting that there "is plenty in my father's house," without being able to "rise up and go there." It seems as though the world was subject to periodical fits of insanity. This California mania is not the first by any means. America was first peopled by just such another golden humbug.

Legal Weights and Measures.—No doubt these are all legally accurate. Now the thing most advantageous to us, who buy by weight and measure, would be for congress to devise some plan to have them used. The amount of fraud daily practised by false weights and measures, if told, would be beyond human belief. We seize and confiscate the poor, petty, short pound of butter, while the short-weight hogshead of sugar goes free. And the head of a tobacco hogshead, weighing alone more than the whole cask is tared at, is looked upon as a good joke. And it is a notorious fact that many yard sticks are only 35 inches long. Are children ever taught in school, I never was, that there is no standard, or beginning point, of weights and measures? [The metrical system of France is founded on the fourth part of the terrestrial meridian. This quadrant is divided into 10,000,000 equal parts, one of which is equal in length to a *metre*. The standard yard of Great Britain and the United States, when compared with a pendulum vibrating seconds of mean time in the latitude of London, in a vacuum, at the level of the sea, is in the proportion of 36 inches to 39.1393; that is, if all that part of the pendulum, which lies between the axis of suspension and the centre of oscillation, be divided into 391,393 equal parts, then will 10,000 such parts be an *inch*, 12 whereof make a *foot*, and 36 whereof make a *yard*. Take a cube of one such *inch* of distilled water, at 62°F.; let it be weighed by any weight, and divide such weight into 252,458 equal parts, then will 1,000 of these parts be a *grain troy*; and 7,000 of those grains will be a *standard pound avoirdupois*. Then, 10 of these pounds of distilled water, at 62°F., the barometer

being at 30 inches, will be one *imperial gallon* of Great Britain, which gallon will contain 277 $\frac{274}{1000}$ cubic inches; consequently the *imperial pint* will hold 14 lbs., and the *imperial bushel*, 80 lbs. of distilled water, at the above-named temperature. The *wine gallon* of the United States contains only 231 cubic inches, and the *Winchester bushel* 2,150 $\frac{42}{100}$ inches.—Eds.] "Three barleycorns make an *inch*;" but how long is a barleycorn? And how much is the weight of a "grain?" What odd customs prevail among dealers in buying and selling articles. For instance, what is always sold by the *bushel*, and never measured but weighed—60 lbs. making a legal bushel. Salt is usually sold by the bushel, barrel, or sack, yet is sometimes weighed to ascertain the measure. New-York salt is 56 lbs. to the bushel, while western salt, I believe, is only 50 lbs. Dried apples are generally sold by the bushel; yet, in many places, they are never measured, but weighed, 22 lbs. only to the bushel, which will make about three pecks. Cotton seed is sold by the bushel, but every 25 lbs. is counted for that measure. The usual custom, upon sugar plantations, is to weigh molasses, every 12 lbs. being counted a gallon, yet nobody ever thinks of selling it by the pound. And so I might go on through a long chapter of similar absurdities.

REVIEWER.

RACE HORSES vs. THE POOR OF GREAT BRITAIN.

It is said that upwards of thirteen hundred race horses ran in Great Britain last year, and about one hundred and fifty in Ireland. To supply this stock from breeding mares, young animals not arrived at maturity, and such as have broken down, or are not in condition for the course, at least ten times this number would be required of horses reared exclusively for the turf. How much then is it to be deprecated, that, amidst the want and suffering in the United Kingdom, where hundreds and thousands of human beings have actually died of starvation, and disease, consequent upon scant or inappropriate food, within the last two years, such large sums as are necessary to sustain this immense stock kept almost solely for *gambling purposes*, could not have been spent in feeding, clothing, and educating the famishing poor.

The food consumed by the very hounds and other worthless dogs of Great Britain, would amply supply numberless almshouses and families with nutritious and healthful soups, which would go far to alleviate an incredible amount of suffering in that country.

CURIOUS DEVICE IN GRAFTING.—The gardeners of Italy sell plants of jasmines, roses, honeysuckles, &c., all growing together from a stock of orange, myrtle, or pomegranate, on which, they say, they are grafted. But this is a mere deception; the fact being, that the stock has its centre bored out, so as to be made into a hollow cylinder, through which the stems of jasmines and other flexible plants are easily made to pass, their roots intermingling with those of the stock. After growing for a time, the increase in the diameter of the stems, thus enclosed, forces them together, and they assume all the appearance of being united to one common stem.

VIRGINIAN SUMACH—RED-CEDAR POSTS.

A WRITER, at p. 285, of your seventh volume, remarks that, Salem county, New Jersey, annually exports, on an average, 50 tons of sumach, at \$35 per ton. As a large quantity of wild sumach could be gathered in this county, where it grows in profusion, I have thought that I would like to make the experiment of gathering and shipping a quantity to New York; but I am at a loss to know how to prepare it for market. Will you, therefore, be kind enough to inform the public through your columns of the best method of cutting, drying, and packing the above-named article, and the price it would probably bring in the New-York market?

(a)

There is another article, also, about which I would elicit information; that is, whether red cedar, suitable for posts a large quantity of which grows on the islands off the coast, would bear transportation to New York and pay expenses. (b)

E. R.

Drummondtown, Va., February 20th, 1849.

(a) This question cannot be better answered and more to the point, than by the following extract from a little work, entitled the "Theory and Practice of Agriculture," recently published by Mr. Partridge, of the firm of William Partridge and Son, dealers in dye stuffs, dye woods, &c., No. 27 Cliff street, New York:—"The annual shoots, or peduncles, with their leaves, [of the common sumach of North America, such as is generally used by our country dyers, and, to a limited extent, by our morocco dressers,] are gathered, dried, and generally are used without grinding. I have never known nor heard of any regular manufacture of the article since I have been in the country; and I shall now offer some observations which I hope may draw the attention of our southern planters to the advantage of cultivating it for our home market.

"It is well known that the most astringent vegetables, or those containing the largest portion of gallic acid, are brought from warm climates; and the following facts will prove, that the quality of sumach also depends on the warmth of the climate in which it grows. The sumach grown in Europe is the *Rhus coriaria*. That which is grown in the north of Europe, and imported from Trieste, is inferior to our northern sumach, excepting a small portion grown in the Tyrol, and even this is not superior to the best American grown in New Jersey; whereas that grown in Sicily, Syria, Spain, Portugal, and Palestine, where it is cultivated with great care, is found by experience to be vastly superior to that from Trieste, and will sell for nearly three times as much. A similar difference is observable in the sumach grown in our own country. That from the southern side of New Jersey is superior to that obtained from the state of New York, and that from Virginia is superior to the New Jersey; and I have no doubt that the same plant raised in our southern states, dried with proper care and fine ground, would be quite equal to the best imported.

"Sumach should be cut or gathered in clear weather, and should be so spread on a floor as to dry rapidly; for if only a small part should fer-

ment, the whole mass will be seriously injured in its marketable value. It should be fine ground when dry, and packed in bags containing one hundred and sixty pounds, net weight, which makes fourteen bags to the ton. No rain nor dew should be permitted to fall on it after cutting; for even the damp from the hold of a ship will greatly injure its quality." A good article usually sells in New York at the tanners, for \$35 to \$40 per ton.

(b) Red-cedar posts, six or eight inches in diameter and ten feet in length, usually sell in New York, by the quantity, at 18 or 20 cents each. Round cedar timber, ten or more inches in diameter and from ten to twenty feet long, is worth from 37½ to 50 cents per foot.

MOSSES ON MEADOWS.

Mosses on meadows, like vermin on cattle, are a consequence rather than a cause of evil. They indicate a deficiency of stamina, health, or condition in the field or animal, rather than induce it themselves. But where either exist, they show something radically deficient, which must first be remedied before any useful results can follow. A farmer might as well leave his money with sharpers, or his manure heap under a spout, as his meadows in moss, or his cattle covered with vermin. All are spendthrifts together; and if left to themselves, will, like Pharaoh's lean kine, soon consume his evidences of previous plenty and show no equivalents in return. But how are we to get rid of mosses in meadows? Let us first see how they get there. The surest way to get rich, is first to know how you became poor.

Mosses are generally the result of a feeble growth of the grasses on a moist surface. The moisture of the land is not of itself objectionable, but decidedly the reverse; but when the profitable occupants of the soil fail or become thin and meagre, the profitless are ever ready to come in and supply their places. This is the case with the mosses; and it is not till the cultivated plants have declined, that these have gathered strength. To remove the latter, the former should be put in the very best condition. Scarifying, harrowing, closely feeding, and treading them thoroughly by the sharp hoofs of sheep and cattle, are all useful in extirpating the mosses from meadows. Sowing strong quick lime over them, when recently mown, or after short cropping by animals, is attended with decided advantage. Ashes will sometimes produce a similar effect. Guano, when mixed with mold and sown broadcast, is exceedingly useful; and so, too, are compost manures of all kinds. These help to destroy the mosses by invigorating the grasses. Properly draining, and especially *thorough under draining* the lands, is one of the most efficient modes of removing mosses and worthless aquatic plants. By carrying off all surplus, and particularly stagnant waters, the atmosphere and heat penetrate the soil and induce a vigorous, healthy growth of the cultivated plants, and thereby withdraw so much of the space and food which otherwise would be monopolized by the intruders.

When these and some other, of the most obvious means of renovating meadows fail, there is no alternative, but to break up the sod and subject the field to another course of cultivation. It is not

absolutely necessary that this undergo a series of rotations, although for many reasons this is better; yet a rotation may be secured exclusively with the forage plants, the clovers, and numerous varieties of the grasses. The meadow may, if it be preferred, be thoroughly manured with unfermented dung, then turned over flat, and after applying a top-dressing of compost, may be harrowed lengthwise of the furrows, and sown with grass seed liberally; and if all has been properly managed, the mosses will not, for years again, infest your meadows.

HINTS ON THE MANAGEMENT OF HORSES.— No. 1.

THE horse is the noblest of our domesticated quadrupeds. He is also one of the most useful in augmenting the power and diminishing the labor of mankind. He touches the extremes of beauty and deformity, and is associated with every degree of pride and degradation, of utility and injury to the human race. He may be refined by breeding, or debased by inhumanity and neglect. He is applied to the economical purposes of the farmer or citizen, or made the shuttlecock of gamblers and the fancy, by being thrown between the winning posts of the race course within the shortest possible time; or he becomes the terrible engine of destruction as he sweeps over the plain in a terrific charge of cavalry.

With us, however, in this portion of America, the horse is generally either the useful drudge and co-laborer of our citizens, or he is made to contribute to the ease, the pleasure, and the luxury of those who can afford it. Reasonable common-sense purposes among an intelligent common-sense people have produced such results as were to have been anticipated. The northeastern states can safely challenge the world to produce an equal proportion of horses every way adapted to the objects sought, as may now be found among them. This great excellence of our horses, has been mainly achieved within the last fifty years, by judiciously crossing the best made and stoutest bloods upon a substantial, but originally not over meritorious stock of brood mares. We have, besides, imported some of the best of other well-established breeds. Such are the Norman, the English cart horse, and Cleveland bay. We have occasionally brought choice animals from different quarters of the world; and where they have been found possessing superior merit, they have been made to contribute their quota in raising the character of American horses. We have within the last few days seen a Barb stallion, recently sent to this country, by our late consul at Morocco, standing nearly 16 hands high, with compact form, well-knit sinews, flat, clean, wiry, but strong legs, a shoulder approximating so closely to the hip as to be almost coupled by a double hand's breadth, yet with a steep Norman rump; and though probably incapable of ever getting a race of winners on the course, yet possessing qualities of intrinsic value for the horse of all work. But it is not our purpose to dwell upon the merits of our horses, but to suggest some of the most obvious hints for their management.

One great cause of injury to horses is, overworking at too early an age, before the frame is expanded and muscles and cords have become

fully developed and perfected. A horse does not reach a full maturity till eight, nor a man till eighteen to twenty-four; and while the boy is generally exonerated from hard, constant labor till he reaches his majority, how often do we see the colt of three or four, delving daily at a load that would tax the powers of the thoroughly-developed horse. Whoever thus overtaxes the youth of the animal, may be sure that he is paying dearly for it in his maturer age. He may waste one end of life, but he cannot both; and for every year thus inhumanly filched from one extremity of horse existence, he is exhausting two if not three, and often times four of what should be his prime. But this folly is getting out of vogue, and is practised only by such as combine the double traits of idiocy and inhumanity.

Another cause of frequent injury to horses is from improper breaking or training, by which the animal is left ignorant of the best and easiest method of doing his work. A horse should be well taught his paces; to walk fast, which is his easiest and least expensive gait; to trot square and light, yet firmly; to gallop easily, if destined for the saddle, and to back well, if used for the wheel. Most of the character and ability for a desirable gait is inbred, and is controlled by the form; yet a great deal depends upon the skill and habit of the animal. We see this in every department of human labor, sometimes carried to an almost incredible extent, as shown by the porters in the Mediterranean and East Indies, who will habitually carry burdens of 300 to 400 lbs., and sometimes it is alleged, as much as 600 to 700. The well-broken New-England oxen, will, with apparent ease, back a loaded cart up a steep hill, which many indifferently trained would hardly draw in the same position.

Long-continued labor is injurious to the horse, though it may be indulged in, occasionally, with impunity. A horse should not be kept dragging from morning till night, with an incessant jog, however slow that may be. He should be put to his work, early or late as you please, and when there, let him move briskly, with an interval of rest now and then, to relieve the muscles and take breath, till his work is accomplished preparatory to lunch; or if his day's work is for four or five hours only, he may do it all with more comfort and advantage to himself without, than with food. A tolerably quick step and activity while out, is better for the animal than delving all day at a snail's pace.

When put up for the night, the horse should be thoroughly rubbed down, the dirt brushed from his legs, and his hoofs cleaned out. Many are in the habit of washing the legs with cold water while the animal is warm, and afterwards allowing him to stand exposed to the cold air. Nothing could be more injurious. If the weather or stable be warm, and the water not too cold, this may be done with impunity, or it may be done at any time, if the limbs exposed to the water are constantly rubbed till dry. Let grooms use common sense in this, and a small amount of it will convince them of what is proper. Whatever would injure a man, will injure a horse under similar circumstances, though in a less degree. It is certainly very grate

ful to the tired beast to have his limbs gently rubbed after a hard day's work; but if this cannot be done properly with water, then remove the dirt with the brush, the currycomb, or by the hand. The hoofs should also be carefully cleaned; and if he has been driven hard over a pavement or M'Adam road, they should be well stuffed for the night with fresh cowdung and clay. This will give a requisite degree of pliability and elasticity to the hoof, and remove any tendency to soreness, feverishness, or foot cracks.

Frequent injury is done to horses by allowing them to stand, after exercising, in a cold air, or exposed to a draught. Consider how the man would fare in his shirt sleeves, in the open air of January, after having induced a profuse perspiration by exercise. Just so will it be with the horse. A cold, cough, catarrh, and what not, is very likely to follow this wanton exposure. Always have an ample, thick blanket to throw over the horse when thus exposed; nor should he, especially, ever be lashed into a sweat in cold weather, unless brought directly into a stable to cool off. It is better to rub him thoroughly till dry; but where this cannot be done, and the weather is cool, blanket or house him till all moisture is removed. Never wash the animal, nor drive him through the water, unless under such circumstances of weather, or subsequent care, as would secure yourself against injury.

SPECIAL MANURES FOR RUTA-BAGA TURNIPS.

THE result of the application of artificial manures in increasing the average produce of ground, cannot but be interesting to the agricultural community, even though these experiments should not have been conducted on American soil; and as every successful result leads to the extended use of special manures, and in most cases to more economical farming, I submit the following instance of what has been accomplished in raising turnips by their means.

Having been applied to in the spring of 1844 by the steward of Lord Charlemont, to analyze a sample of soil from the estate lying two miles from Dublin, and to point out how the soil might be improved so as to grow Swedish, (ruta-baga,) turnips for a prize crop, I found, after examination, that the soil was in good condition, having been manured the summer previous, but that it was to a small extent destitute of potash salts and phosphate of lime, to the degree that a heavy crop would require to find readily in the soil. On this account the following manure was recommended:—

56 lbs. pearl ashes,
28 lbs. nitrate of soda,
14 lbs. coarse Epsom salts,
56 lbs. bone dust.

To be mixed in with ditch scourings, road sweepings, some burnt earth, and other refuse off the farm, so as to make the compost sufficiently bulky; the whole to be laid on a statute acre.

The object in using nitrate of soda was twofold; first, it supplied the small quantity of soda found in turnip ash (10 lbs. in every 20 tons); and then, the form in which it is added, containing, as it does, nitrogen, (nitric acid,) rendered it peculiarly serviceable in pushing on the early growth

of the turnip. The bone dust and pearl ash were supplied because the crop required them; and the Epsom salts, because it was desired to put in wheat immediately after in the soil.

The result of this manure more than equaled expectation; their size was superior to any exhibited, and they received the first prize from the Royal Agricultural Society of Ireland, as well on that account as for the total yield amounting to 56 tons the English acre.

The above-named manure cost about \$6 per acre; and whether we consider it in the way of economy, or of an addition having a wonderful effect in stimulating vegetation, it recommends itself strongly to notice. The wheat crop following was one third greater yield than usual, or more than a portion of the ground unmanured did yield. As this compost was applied to a soil in rather a good state, with the object of forcing a great growth, there is no reason why the same special manure might not be applied to all soils intended for Swedes, and where condition is not exhausted by neglect of manuring.

THOMAS ANTISELL,
Laboratory of the Amer. Agricultural Association, March 7th, 1849.

NORTH-AMERICAN POMOLOGICAL CONVENTION.

At the meeting of the Pomological Convention, held at Buffalo, September, 1848, the following resolutions were adopted:—

"Resolved, That hereafter an annual assemblage, or convention, shall be held under the name of the 'North-American Pomological Convention.'

"Resolved, That this convention shall be held in the coming year of 1849, in the town or city in which the New-York State Agricultural Fair may be held—to convene its session the first day succeeding the closing of the Fair, and that the Recording Secretary of the New-York State Agricultural Society shall be entrusted with the charge, and respectfully solicited to give due notice of the time of meeting, by means of agricultural journals, and cards of invitation to gentlemen pomologists and horticultural societies throughout the Union and the Canadas, that they may send delegates or attend and bring or send specimens of fruits for exhibition."

The annual show and fair of the New-York State Agricultural Society having been fixed for the 11th, 12th, and 13th of September next, at the city of Syracuse, I do, in compliance with the request contained in the above resolution, hereby give notice of the meeting of the North-American Pomological Convention, at the city of Syracuse, on Friday, the 14th of September next, the day succeeding the show of the New-York State Agricultural Society; and on behalf of the said convention, extend a cordial invitation to yourself to attend, and the society with which you are connected to send delegates to the convention, and to forward specimens of fruits for exhibition.

Any fruits that may be sent can be directed to the care of P. N. Rust, Esq., Syracuse.

B. P. JOHNSON.
Sec. N. Y. State Ag. Socy.

Albany, April 6th, 1849.

THE Committee chosen by the above-named con-

vention, at its meeting in Buffalo last September, to devise such plans as they might deem best calculated to carry out successfully the objects designed by the members thereof, have concluded, as part of their plan, to appoint other committees for each state, territory, and the Canadas, whose duty it shall be to collect information as to the value of the various varieties of fruits now under cultivation, the value of new seedling varieties, and such other matter appertaining to the subject, as may be of importance, in their opinion, to the fruit-growing interests of the country, or to the community at large, and report the results of their inquiries and observations to the convention on its assemblage in Syracuse on the 14th day of September next.

The following gentlemen compose the committee for the state of New York, viz.:—Herman Wendell, M. D., of Albany County, Chairman; David Thomas, Aurora, Cayuga Co.; Alexander H. Stevens, M. D., Flushing, Queen's Co.; J. W. Knevels, Fishkill, Dutchess Co.; John R. Rhineland, M. D., Huntington, Suffolk Co.; N. Goodsell, Greece, Monroe Co.; D. Jay Browne, City and County of New York; J. W. Bayley, Plattsburgh, Clinton Co.; W. R. Coppock, Buffalo, Erie Co.

Growers of either old or new varieties of fruit are requested to communicate information of importance in relation thereto, which they may be in possession of, to any of the above-named gentlemen: and originators of new varieties of merit are requested to send specimens to the member of the committee who may reside nearest their vicinity.

As the object for which the above committee has been appointed is one of great importance to the community at large, editors of newspapers throughout the state, and also editors of horticultural or agricultural journals are requested to give the above an insertion in their editorial columns.

HERMAN WENDELL, M. D.,
Chairman of Committee.

Albany, March, 1st, 1849.

A CHEAP COMPOST—APPLICATION OF LIME, GREEN CROPS, ETC.

You ask me how I manure my grounds. First, I have a large cart that will carry 36 bushels of night soil. I now give certain persons 37½ cents a load for it, and furnish them with a pair of oxen and driver. My night soil, then, costs me one and a half cents per bushel. To this, I add half a bushel of plaster of Paris, at a cost of half a cent per bushel; 36 bushels of locomotive cinders, at a quarter of a cent per bushel; and 36 bushels of marsh mud from my own farm, at a cost of half a cent per bushel. Here, then, we have 108½ bushels of the richest compost, without weeds, for 99 cents, say, in round numbers, one cent per bushel.

My lands generally consist of decomposed red sandstone, on which lime acts most favorably. I lime all my fields, and prefer small doses, say, 30 or 40 bushels per acre, to be repeated every three or four years. I am satisfied that plowing in a crop of green corn, buckwheat, or oats, and then liming with 30 to 40 bushels to the acre, will soon bring round all worn-out land.

R. L. COLT.

Paterson, N. J., March, 1849.

PRESIDENTIAL MANSIONS.

As a matter of interest to our readers, we insert a view of the private houses of some of the former chief magistrates, and of the existing President of the United States, none of which present the imposing character of the aristocratic mansions of Europe, especially of those who have held so prominent and conspicuous stations as the owners and occupants of the buildings subjoined. Two reasons

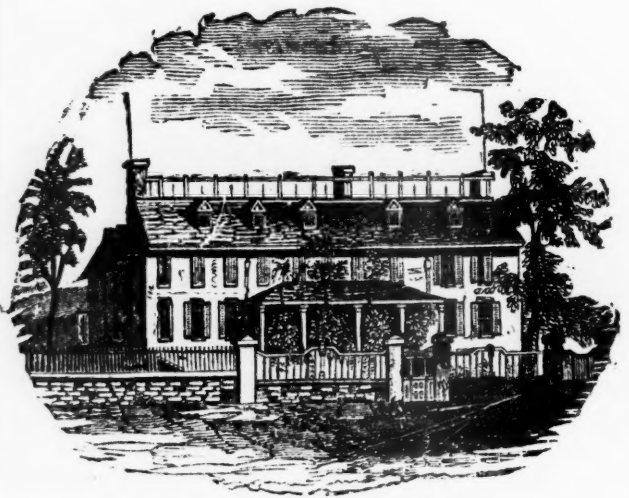


FIG. 37. RESIDENCE OF ADAMS, QUINCY, MASS.

exist for this difference. With the exception of Washington and the younger Adams, all of our chief magistrates have been comparatively poor, or possessed of only a moderate competence; and consequently, they had not the means for extravagant outlays on their domicils. But another and a more powerful cause withheld pretension and



FIG. 38. MONTICELLO—RESIDENCE OF JEFFERSON.

show, which is to be found in the severer taste and greater simplicity predominant in our new Republic, and which would have prevented any desire for unnecessary display in the exalted minds of most of those who have been called upon to exercise the highest functions of our government. They sought distinction by bold deeds, and the exhibition of those high moral and intellectual qualities, which secure a fame more enviable and endur-

ing than are to be found in the perishable materials of wood and stone. This was the feeling that prompted the last breath of our late deceased president. When his "earthly tabernacle" was about dissolving its original elements, the remarkable words, "*This is the last of earth,*" was intended, in his comprehensive and ever-active and intelligent mind, to include the whole pageantry of matter in all its forms; and his moral and intellectual



FIG. 39. HERMITAGE—RESIDENCE OF JACKSON.

fame was all the glory that was hereafter to remain of that patriot sage. Similar sentiments have been eminently characteristic of all our presidents deceased.

The mansion of the elder Adams, which was also afterwards occupied by his son, affords a fine specimen of the better class of New-England

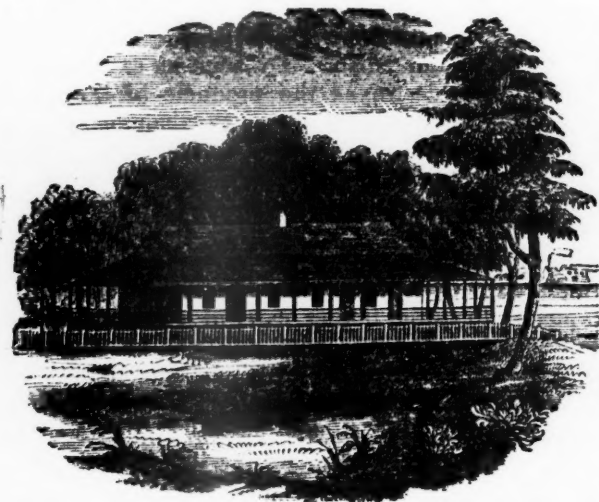


FIG. 40. RESIDENCE OF TAYLOR, BATON ROUGE.

architecture nearly a century ago. Those of Jefferson and Jackson are samples in building, which are to be found among the variety of style in the middle states. That of President Taylor shows the prevalent fashion of planters' houses throughout most of the southern states, especially in Louisiana. The latter combines the greatest simplicity and convenience, with the least pretension and show, being admirably suited to the comfort and wants of the occupants.

USE OF LIME IN VAULTS.

THERE can be nothing more wasteful to the fertilizing properties of night soil, than throwing quick lime into the privies. It expels the offensive odors, it is true, but these are precisely what are most efficient and desirable as manures. It is a practice only to be tolerated by those who never make any use of the contents of their vaults. The strongly alkaline properties of the lime combine with the carbonic and other acids, already in combination with the ammonia, thus driving off the invaluable fertilizing materials of the latter. Fine charcoal, charred peat, plaster of Paris, sulphuric acid, and common copperas, (sulphate of iron,) are the best additions for vaults, where the contents are to be used as fertilizers, as they absorb the gases, ammonia, &c., and retain all for manure. If these are wanting, add dry mold, or peat, tan bark, or sawdust, though these are much more bulky than the former, in the ratio of their absorbent powers. These may be added from time to time, and when sufficiently accumulated, withdrawn for use.

When the earth contiguous to privies is exposed to saturation, by which the contents may be diluted, and thus drained off, the vaults should have perfectly tight boxes, which can be easily drawn out from behind as fast as filled. The addition of wood ashes is to be placed in the same category with lime, though these are less objectionable. The alkalis of the ashes operate in the same way as the stronger and more active alkali of the lime, though in a less intense degree. But the cinders of the ashes are absorbents of the gases, and, to the extent that they exist, are directly beneficial in this combination.

GUANO vs. POUDRETTE.

WE notice with some surprise the constant increase in the consumption of guano, when large quantities of fecal matter, which constitute the fertilizing properties of poudrette, are suffered to go to waste. The cities of the United States annually expend large sums, in the aggregate, to get rid of the ordure of their yards, which, if properly managed, would bring them an income even larger than the amounts they now pay to have it removed.

Did it ever occur to the reader that these same excrements, which are thrown away, or are washed through sewers into the rivers, and thence floating along their currents to the ocean contribute to the growth of fishes and sea plants? That these same fishes and plants are devoured by seals and aquatic birds, which drop their offal on islands off the coast of Africa, Patagonia, or Peru, and there form the guano of commerce? And that this same guano, after many years, is brought back to us again, thousands of miles, at no small expense, to fertilize our land? Truly, this is a round-a-bout way of feeding our crops.

Would it not be more economical to save, and apply these manures directly to our fields, and thus benefit the present generation, instead of letting them pass off into the ocean to be returned to our successors, in an expensive form, perhaps fifty years hence? If we are parsimonious in saving money, why should we not be the same in husbanding the fertilizing substances of the stable, the sink, or of any similar matter within our reach?

COAL ASHES.

By many persons, coal ashes are deemed of no value. One gentleman of wealth and intelligence, and an extensive and very good farmer, too, once said to us, to use his own expression, that they were "pisen" to land and vegetables. He had not examined their effects cautiously and candidly. There is so large a proportion of inorganic mineral matters, (earths never combined with vegetable,) that these ashes act feebly, and produce little effect.

The plants from which the coal is derived, were apparently produced in great luxuriance and profusion, and like the palms, ferns, lichens, and other plants which grow rapidly, or in swamps, (as the materials of our peat beds.) These contain little else than carbon, and such earthy matters as were accidentally mixed with it. The consequence is, that all the carbon is consumed, and the ash is principally these comparatively worthless earths. Yet there are more or less of the valuable salts found in wood ashes in those from coal, and they should be carefully saved and applied to the soil. For many reasons, they are better adapted to the clays than to other soils, and to this portion of the fields they should first be devoted; or, in the absence of clays, they may be applied to any other soils with advantage.

NEW MODE OF PREPARING BONES FOR MANURE.

THERE are several methods of preparing bones for application to land as manure. One is by calcination, or burning, by which all the organic matter is burned or driven off. This fits the mineral portion of the bones for immediate and efficient action in the soil, in consequence of reducing the bones to a minute state of division, and expelling the oil and gelatine, which, for a time, prevents decay. By this process, however, the animal matter is lost as manure. This amounts to 35 to 50 per cent. of the fresh bone according to the age of the animals supplying them, the youngest always giving the largest proportion of cartilage, oil, and gelatine.

Another method is by placing the bones in a compact heap or hogshead, first crushing them, and pouring over them, from one third to one half their weight of sulphuric acid, diluted with water. This generally effects a speedy decomposition of the bones and augments the efficiency and intensity of their action, as the sulphuric acid is itself a powerful manure for certain soils and crops.

A less expensive mode, sometimes adopted, is, to place the bones together in a heap, and moisten them with ashes and water, covering closely with muck, manure, or common garden mold. If this be done in a warm room, or in the open air in summer, or in the centre of a bed of horse or other fermenting manure, they will soon dissolve, and be in a fit state for application to the crops, after mixing with mold so as to absorb their moisture.

Grinding or crushing is the usual method of preparing bones for the soil. They are thus rendered comparatively fine, and are easily decomposed when incorporated in the ground. They are conveniently transported in barrels or sacks, and applied with little trouble either to the muck heap, or sown

broadcast or in drills. In this condition, they also preserve the animal matters, (the oil and gelatine,) which are slowly given out by decomposition and materially contribute to the growth of the crops.

A trial has recently been made which gives us another, and in many respects, a method superior to all others. It consists in subjecting them to steam of a high pressure for a few hours when the oil and gelatine are entirely separated, and the largest bones, skulls, hocks, vertebræ, &c., are easily crushed between the thumb and finger, though retaining their full proportions and form. The fat may be thus drawn off and used for soap grease, for cart or wagon wheels, or for certain kinds of machinery, while the remainder of the extracted matter is useful for manure.

A small boiler for generating steam, with a larger one to hold the bones, and a connecting tube, each capable of sustaining a pressure of 25 lbs. to the inch, are all that are required for this purpose; or should a steam boiler be already in use about the premises, this would supply the place of a steam generator. Where wood ashes are procurable, at fair rates, they are economically used with fresh bones, first by leaching and boiling the bones in the lye. If this process is thoroughly carried out, the oil is converted into soap, and the bones are prepared for ready decomposition in the soil. The spent lye yielded by the soap, and the leached ashes and lime remaining, may also be added to the soil, with the utmost advantage.

PROTECTION OF GRAPE VINES AGAINST ROSE BUGS.

THE cultivators of the grape, in many parts of Long Island, have often had their hopes blasted of enjoying this luscious fruit by the depredations of the rose bug, a small yellow beetle that appears in countless multitudes when the vine is in blossom and the berries are newly formed, for which they have a particular relish. To such an extent have these insects destroyed the products of the vine, that many have been induced to abandon all attempts to cultivate this fruit. Having been a close observer of the habits of this insect, I will offer a plan by which grapes have been grown secure from their attacks.

In the first place, plant the vines adjoining some building, or close, high fence, in a place free from exposure to cattle, taking care, of course, that the ground is sufficiently loose and rich by the addition of manure, wood-pile dirt, or almost any decayed animal or vegetable matter. The first year's growth of the vine should be cut down to about 18 inches above the ground, and the second year's growth should be reduced to two shoots trained horizontally, about two feet above. Some time in the course of the second winter, prepare some strips of board, three inches wide, and of a length to suit the building, or fence, against which the vines are to be trained. Fasten them about three feet apart, in an upright position, to cleats, nailed on in such a manner as will allow the vines to be about four inches from the side of said building or fence. Then take pieces of No. 10 wire, and fasten the ends to screws inserted in the outside upright strips, at the distance of 15 inches, one above the other. These outside strips should be secured

to the cleats, in order that the wires may be drawn straight and tight over the screws. The frame, or trellis, being thus fixed, a leading shoot from the horizontal vines, at the bottom of the frame, should be trained perpendicularly to the top of each strip.

After the second year, the vines must be subjected to three prunings per annum. At the first, or winter pruning, all the side, or horizontal shoots, should be cut from the wires to within two joints of the upright shoots. The second pruning should be done as soon, or before, as the bug makes its appearance in the spring, when all the shoots should be cut off except two, to run along the wires, each in opposite directions. By this means, all parts of the vine will be fully exposed to the heat of the sun, which seems to be offensive to the bugs. At the third pruning, it will only be requisite to shorten the side shoots on the wires, leaving four joints beyond the outside bunches of grapes, which may need thinning, if a less number and a better quality be preferred. I.

Westbury, Long Island, 10th mo. 25th, 1848.

VERY IMPORTANT TO FARMERS.

TURNIPS may be liberally fed to milch cows without imparting any unpleasant flavor to the milk or butter, by the following process:—Place the whole turnips into a steam box, with chopped hay, straw, or corn fodder, and steam them until they are soft. There should be some apertures in the top of the box, in order that the steam may escape whilst they are cooking. As soon as they are soft, the "escapes" should be closed, and the steaming process continued until the material with which they are steamed is perfectly saturated with water and the flavor of the turnips.

By this process, all the strong, unpleasant flavor of the turnip is removed, and a palatable one imparted. In connexion with this experiment, I made the following invaluable one in testing the comparative value of cold and warm food and drink for milch cows:—The experiment was conducted thus—A herd of nine cows in a stable were fed with food, prepared as above, and allowed to cool before it was fed. The cows were turned out into the yard to drink cold water, where they remained some two or three hours, morning and evening, in the cold air (the weather being very cold). The food was given in the stables, and the cows remained in all night. The milk was carefully measured for one week, and the amount of feed given, noted. The succeeding week the same amount of feed, prepared in the same manner, was given warm, the stable temperature was kept above freezing, and the chill taken off the water, the cows being constantly kept in the stables and the water carried to them. The result was, that there was an average gain, or increase, in the amount of milk secreted, of about one pint per diem for each cow, or nine pints, at 5 cents per quart, or 2½ cents per day. This will leave a net profit, in favor of the warm stable, food, and drink, of about 13 cents per day of the nine cows, or about \$4 per month, which is the usual wages paid a common laborer in winter, in this region.

Besides the above advantage, the cows were much more comfortable, and the labor of turning them out into the yard and putting them up again,

was more than that of carrying the water to them, as they required but little, being fed with moist steamed food, about one third of which was turnips.

I have also fed my swine with warm swill during the past winter, in which I have found a decided advantage.

JOHN WILKINSON.

*Mount-Airy Agricultural Institute,
Germantown, Pa., March, 1849.*

FATTENING POULTRY—EXPLANATION.

IN the March number of the *Agriculturist*, I see your charming correspondent E. S. gives me several rather severe hits on the account of my experiment in fattening poultry, as detailed in the January number, to which you appended some judicious remarks, on the qualities of birds, beasts, &c. With your permission, I will offer a little explanation on several points.

In the first place, I did not say that the method made use of by me was the *best*. I said, "by some such way" poultry might be sold for more money, thereby increasing the farmer's gains.

Secondly, the cheapness, which E. S. says is so doubtful, may not be so when I tell her that the rice I used, was not clean, but was bought at 3½ cents per pound. Again, I am told by one experienced in such matters, that I kept my poultry confined too long; as they probably were in better condition on the ninth and tenth day than when killed.

Thirdly, they were kept perfectly clean; the box, in which they were confined, having no bottom, was moved a little out of place every day.

Fourthly, under the head of cruelty to animals, I must "plead guilty;" still, when we consider that it was night to them a great part of the time, when poultry of all kinds crowd into the smallest possible compass, this will be no great objection. Let that be as it may, I know they were perfectly quiet all the time.

I was induced to try rice, from the fact that the rice buntings, of the south, get so excessively fat from feeding on this grain when "in the milk;" and my object was to endeavor to make a dish that would approach nature as near possible.

J. B. D.

Boston, March 7th, 1849.

FRUIT AT THE SOUTH.—"I have just planted out an orchard of 500 choice apple and peach trees, and filled the yard round my house with plums and apricots, the first work I have ever done in this line."

Thus writes a friend under date of 26th February last, from the centre of South Carolina, and very glad are we to hear it; for we have always contended that a finer peach, apricot, and grape country does not exist than is to be found in the southern states. Certain kinds of apples, cherries, and plums do well there. The smaller fruits, such as strawberries, raspberries, blackberries, and currants also grow very finely. Gooseberries do not flourish so well, except in the mountainous regions. We would be obliged if any of our southern friends would inform us whether the whortleberry, (*vaccinium*), is found at the south except among the mountains.

ROLLING CORN IN TAR PREVIOUS TO PLANTING.

THIS is by no means a new idea to many farmers, but some have discarded the practice from the opinion of its having an injurious effect upon the corn, by causing it to come up unevenly; but such is the result of mismanagement in preparing it. If it is prepared according to the following directions it will effectually prevent it from being molested by birds, mice, squirrels, and domestic fowls, thus remedying the necessity of putting up twine and other scarecrows to keep off the former, and of confining the latter when you have a field planted near the house. As for its immediate effect upon the corn, so far as my observation has extended, I think it acts as a stimulant to the young plants, causing them to assume a healthy appearance:—

Soak the corn, say 12 or 14 hours, in water, or any solution which you are in the habit of using; then, before applying the tar, pour off the water, and cover the corn with hot water—the hotter the better. If it is boiling it will not hurt it, provided it is stirred as the water is poured on; let it stand two or three minutes; then drain off the water, and put about two table-spoonfuls of tar to a peck of corn, and, by stirring it with a stick, the tar, which is softened by the heat of the corn, will diffuse itself throughout the whole mass, and every grain will receive a coating; then, by rolling it in plaster of Paris, it will be in fine condition for dropping. If you should be preparing it in the vicinity of domestic fowls, it would be well to offer them a few grains. If they refuse it, they will not molest it in the field; but if it is not sufficiently disgusting, add in small quantities more tar.

ISAAC McREEL, JUN.

Yorktown, N. Y., 3rd mo., 1849.

LETTERS FROM CALIFORNIA.—No. 3:

SINCE the date of my last, I have come down to the coast, and taken up my winter quarters at this place, which will probably be the future emporium of this new territory. With the exception of San Diego and Bodega, the bay of San Francisco is the only one available, as a safe and commodious harbor, on this coast, though there are, in addition, several roadsteads, such as the bays of Monterey, Santa Barbara, and others. There are now congregated here some of our national marine, and numerous merchant vessels from all parts of the world; and it is safe to predict that this number must be largely augmented by numerous arrivals during the approaching spring and early summer. The thrilling intelligence hitherto carried to the United States must inevitably act with great intensity upon the excitable spirits of our enterprising countrymen; and thousands are now preparing to abandon for a time, at least, home, friends, and all the luxuries of civilized life, to seek, amid the sands of California, the precious dust which they vainly fancy will add to that solid comfort they already possess. I have often thought of the reply made by a friend to Pyrrhus, when about to leave his prosperous kingdom, in Greece, for an expected career of conquest abroad. After listening to his plans for the subjugating of foreign powers and territories, his friend inquired, "And what then?" "Why, I will return and enjoy myself among my friends." "And cannot you do that

now?" was the pertinent reply of his judicious friend. His defeat, the destruction of his army and allies by the Romans, his inglorious retreat, the beggary of his country, and his subsequent career, attest to the wisdom of his less ambitious counsellor. But words are thrown away upon ambition; it must have its run; success or defeat alone will satisfy it.

Let us investigate the prospects of those who aspire to the acquisition of the treasures of California. The existence of large quantities of gold in this wonderful country, was demonstrated by the early settlers, many of whom amassed large fortunes by its collection. It is alleged, and with probable truth, that a knowledge of its existence, in considerable abundance was possessed by many of the Jesuits, who embraced by far the largest portion of the intelligence of this country, and by some of the principal inhabitants, who procured what they desired for themselves, and then suffered the secret to die with them. We can readily imagine why one sluggish Spaniard, or fifty designing Jesuits, whose ambition runs in a different channel, could thus suffer immense wealth to remain concealed in the rich washings, or richer mines, when its acquisition was attended with considerable personal inconvenience. Its recent discovery by a single Yankee, has set the world agog. The present mania was started by one of Captain Sutter's men, a New-York mill wright, who was erecting a saw mill in the American fork, some 40 miles above Sutter's Fort. Secrecy was attempted for awhile, but was not of long avail, and soon every man in California, and as far beyond it as the news was carried, came rushing up the valley of the Sacramento in pursuit of it. The Indians, wild and tame, like a herd of hungry Buffaloes with whatever stray hunters and trappers were accessible, poured down the mountains, and from the far north followed the Oregonians, while the Mormons from the east, and the recently-electrified Mexicans from the south were soon all upon the track for gold. The consequence of this widespread search has resulted in finding the gold dust scattered with more or less profusion throughout a great extent of country.

The deposits are said to extend through a space of nearly 900 miles in length by 300 in breadth. But these statements must be taken with great reservation. That deposits may exist at these distances from each other is very possible; but that they are to be found in much abundance as washings, except in the narrow valleys and beds of rivers, and a few of the still narrower gorges among the hills and mountains, is highly improbable. It is undoubtedly to be expected that these auriferous sands will hereafter be traced by an enlightened science, till they reach the original deposits in the mountains; and veins and masses of gold will continually be found by excavation, instead of the light and scattered fragments which have heretofore so richly rewarded the explorers. The localities where the grain gold is now found, are called *placers*. The existence of the gold region was clearly indicated by Mr. Dana, when visiting this country with the United States Exploring Expedition. But his enlightened suggestion was not followed up by any attempt to verify the

existence of the metal. Similar deposits have been found in various places both in the old and new world. Many that at one time yielded immense quantities of the precious metal, have long since become exhausted, and are now wholly abandoned or wrought at a compensation less than is received for any equally laborious occupation. New Mexico, Brazil, and various other sections are examples in point. The washings from the mountains in the interior near Rio Janeiro furnished \$10,000,000 annually, a century and a half ago; but for years, the memory of their existence has been lost to the inhabitants.

The *placers*, or *washings*, of California are rich, probably as much so as any that ever existed; but as all similar deposits, hitherto discovered, have become nearly exhausted, we are forced to the conclusion that the same result will eventually follow in this country. Of the mines that may now be locked up in the bowels of the earth, there may remain inexhaustible stores, which will continue to give out their reluctant hordes for ages to come. But, in the meantime, the *placers* are better suited to reward the efforts of frontier life, than any mines could possibly be. The adventurous, hardy pioneers that now flock to the country, can go out single-handed, with their bowl and pitcher, or what is better, in well-arranged companies, and each gather enough to satisfy a reasonable ambition; while the deeper and more inaccessible deposits, now hidden in their original veins, will be yielded up only at the call of patient, scientific research, aided by the resources of accumulated capital and an elaborately-perfected, mechanical skill. [We have here to omit a large and interesting portion of our correspondent's letter for want of room and appropriateness to our columns. We add, with great pleasure, his conclusion.—Eds.]

Having thus given you an outline of the current intelligence respecting the gold of California, which you doubtless will have amplified an hundred fold from other sources, I shall confine myself in future, principally to topics connected with the geography and scenery of the country, and its climate, soil, productions, and agricultural capabilities. * * *

San Francisco, Feb. 24th, 1849.

SUPPOSED INJURY FROM PLOWING UNDER GREEN CORN STALKS.

In a communication from Andrew Nichols, of Danvers, Massachusetts, published in the *Agricultural Transactions* of that state for the year 1847, he says:—I once had as much corn fodder, that is, as many corn stalks as would grow without manure, at least five or six tons to the acre, carefully covered by the soil in the month of September; and the result was no benefit to the land, the loss of the crop plowed in, and half the cut crop of corn planted thereon the succeeding year!

Did the buried crop then really injure the soil? Perhaps not. I account for the last-named loss by the fear I had of losing much of the fertilizing quality of the rich mass which I supposed was rotting below, should I turn it up by the plow, and expose it to the sun and air by so doing, and consequently planting the corn on manure in holes, without plowing the land at all, presuming—mis-

taken man that I was—that the roots of the corn would find no difficulty in permeating a soil so rich and *spongy*, as I supposed that must be. But in reality, the soil was neither rich nor *spongy*. The stalks, instead of rotting, had fermented and had been converted chiefly into alcohol and vinegar—the former flying off by evaporation, and the latter uniting with the alkaline or ferruginous earths, forming salts less fertilizing, perhaps, than their bases, as they existed in the soil previous to their union with the acid. Whatever theory on this subject we may adopt, I presume it will be generally admitted that alcohol and vinegar are poor, very poor food for animals or vegetables. And consequently, such vegetables as produce these most abundantly—those containing much sugar—such as corn stalks, especially when green, are not the best articles for the purpose under consideration. Buckwheat and clover are probably better.

THE LACTOMETER, OR CREAM GAUGE.

THIS useful instrument consists of one or more plain glass tubes rather more than 10 inches long, and of uniform diameter. The upper part of each tube is divided into inches and tenth parts, beginning at the height of 10 inches, and counting from 0, downwards, for the space of three inches. Then, each division will, of course, represent one per cent. of the whole.

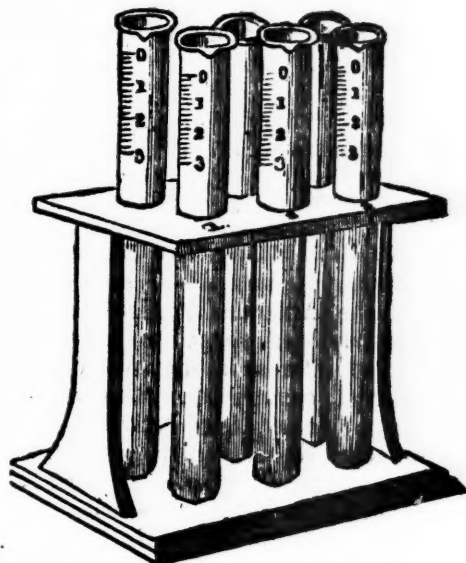


FIG. 41. LACTOMETER, OR CREAM GAUGE.

When it is required to test the quality of an evening or morning's milk, all that is necessary to be done, is to fill the tube until it reaches 0, and allow it to stand 10 or 12 hours, by which time the cream will have separated itself from the milk, and be distinctly seen floating on the surface to a depth, perhaps, of 2 to 3 inches, according to its richness. In the same manner, by having six tubes, as represented in the above cut, the comparative value of the milk of six different cows may easily be ascertained, and their usefulness for dairy purposes more correctly determined than by any other means.

Care must be observed to fill the tubes as soon as the milk is taken from the cow; for, should any delay take place, a portion of the cream will have

risen towards the surface. The milk to be tested should be taken from the middle of the pail, which may be done by dipping a small pot below the froth.

To persons interested in the affairs of a dairy, the utility of such an instrument as the above, is too obvious for further comment. Price, \$5 for six tubes, including frame, or a less number in proportion.

PROFITS OF FARMING.

THE following are the proceeds and kind of crops raised, the past year, on 70 acres of land, belonging to Mount-Airy Agricultural Institute, Germantown, Pa., by John Wilkinson, Esq. :—

4½ acres maize,	50 bush. per acre	\$146.94
6½ " rye,	27 " "	163.80
12 " wheat,	12 " "	297.36
9 " oats,	53 " "	153.60
5 " potatoes,	250 " "	937.50
1 " turnips,	350 " "	87.50
1 ¹⁰ / ₁₀₀ carrots,	720 " "	345.60
1 ¹⁰ / ₁₀₀ sugar parsnips,	80 " "	40.00
½ " early potatoes,	100 " "	75.00
12 barrels apples,		18.00
40 bushels pears,		40.00
Pork sold,		338.50
" preserved for the use of family,		98.50
Milk and butter sold,		45.00
Surplus hay, straw, and stalks, besides keeping 2 oxen, 3 horses, 13 cows,		150.00
Calves sold,		50.00
		<hr/>
		\$2,987.30
Deduct expenses		2,245.60
		<hr/>
Net proceeds,		\$741.70

ANALYSIS OF SOILS, MANURES, ETC.

THE accompanying analysis of soils made in the laboratory of the American Agricultural Association, since it has been opened to the public, may not be devoid of interest in the eyes of an intelligent agricultural community. Out of a larger number, I have selected those derived from sources distant from each other, which present, in some degree, the characteristic soils of those counties from which they have been forwarded.

The first sample, belonging to Mr. R. L. Pell, from Pelham, Ulster county, N. Y., was kept above two years in paper, previous to analysis, which accounts for the small per centage of water. The ingredients of 100 grains was as follows :—

Water,	1.00
Vegetable matter,	3.40
Silica and silicate of iron,	88.85
Alumina and oxide of iron,	4.40
Lime,	0.30
Magnesia,	0.20
Sulphuric acid,	0.68
Lime with sulphuric acid,	0.28
Potassa,	0.38
Common salt,	0.65
	<hr/>
	100.14

The last four-named substances are those which dissolve readily in water, and, existing in large quantity endow the soil with great fertility.

The second sample, forwarded by Mr. Archibald Russell, from the same county, was raised off the field immediately before analysis. It contains much less soluble, saline matter than the foregoing, and also less lime, being of a more sandy character :—

Water,	2.56
Vegetable matter,	5.53
Silica and silicate of iron,	88.36
Alumina and protoxide of iron,	1.61
Lime as silicate,	0.78
Magnesia, do.,	0.14
Soluble saline matter, sulphate of lime,	0.30
Common salt,	0.47
Potassa,	0.25
	<hr/>
	100.00

The third sample was from Staten Island, from a field of Mr. D. A. Comstock :—

Silicates of iron, lime, and magnesia,	83.40
Alumina and peroxide of iron,	5.90
Lime,	2.94
Magnesia,	0.78
Potassa with sulphuric acid,	0.32
Lime with vegetable acid,	0.18
Common salt,	0.40
Traces of phosphoric acid,	0.00
Vegetable matter,	4.44
Water,	1.64
	<hr/>
	100.00

Phosphoric acid was found in all the foregoing soils, but in smaller quantities in that from Staten Island than in the others. Bone dust was recommended to that soil.

The fourth sample is of a different character from Westchester county, a richer soil than any of the foregoing. It contains a very remarkable quantity of magnesia, perhaps derived from the mica, small spangles of which occur in the fine sand left after repeated washings :—

Water,	3.86
Vegetable matter,	6.25
Alumina and peroxide of iron,	79.25
Carbonate of lime,	6.68
Carbonate of magnesia,	1.67
Common salt,	0.32
Magnesia as carbonate and phosphate,	0.76
Sulphuric acid with lime and potash,	0.21
	<hr/>
	100.00

This soil had been forwarded for analysis, as being supposed to contain some ingredient inimical to the growth of pear trees, numbers of which had large excrescences growing on the bark. The chemical examination showed the soil to contain no noxious element, and the excrescences were produced by the irritation of the wood and bark round the spot where it had been punctured by an insect and the eggs deposited.

The fifth sample is that of a substance forwarded and marked "sulphate of lime," and sold as such by a respectable druggist. Being the residuum of a soda-water manufactory, it had the following constitution. It may be necessary to state that it presented the appearance of a thick cream or paste,

and was found in that condition to contain 97 per cent. of water when dried until it ceased to give off moisture; the dry portion was examined and yielded in 100 parts,

Sulphate of lime, . . .	40.83
Carbonate of lime, . . .	32.66
Carbonate of magnesia, . . .	0.05
Water,	26.46

100.00

If we deduct this last portion of water, (which is always present in dry sulphate of lime,) from the total quantity, there still remains the large amount of 71 per cent., or nearly three fourths of the whole weight of the substance. Of the remaining fourth, one third part consists of carbonate of lime, an impurity here arising out of the wasteful neglect of the manufacturer, but for which the purchaser would pay a sum far above its real value. In other words, the substance sold as sulphate of lime has been found to contain little more than one ninth of that substance.

This affords a good instance of the value of chemical analysis to the farmer, in pointing out, immediately, where imposition is practised, and what the exact money value of any manure may be.

THOMAS ANTISELL, M. D.,

Chemist to the American Ag. Association.
New York, April 13th, 1849.

THE APPLE-TREE BORER.

THE grub, or borer, which infests the roots of apple trees, has been known to me more than forty years. When fully grown, the worm is about the size of a rye straw, one inch long, with a small, red head, and appears similar to those cut out of old wood. When taken from the tree, these insects do not appear to possess the power of crawling, and hardly of motion. They are peculiarly injurious to nurseries of young apple trees, frequently destroying nearly all the bark around the roots, and boring them nearly off, just at the surface of the ground, so that they may easily be broken down by the hand. They also do material damage in orchards, particularly young ones.

This worm is known to be generated from a nit, or egg, deposited in the bark of the tree, near the surface of the ground, by a bug, or beetle. [This is the *Saperda bivittata*, of Say, described at p. 75, in our seventh volume.] The first summer, the young worm grows about a quarter of an inch long, and moves downward in the bark, perhaps an inch. The second year, it increases considerably in size, and generally progresses in its work of destruction two or three inches further, more or less downward, consuming the inner bark of the tree, reducing it to a sort of powder. The third year, it still continues its work of destruction, when it attains its full size. The fourth year, it bores into the hard wood to the depth of from one fourth to three fourths of an inch, and then ascends perpendicularly in the trunk from four to eight inches; thence curving outwards till it comes to the bark. In this situation, it lies until the spring following, within which time it changes into a species of bug, or beetle, nearly three fourths of an inch in length, with horns, or feelers,

and wings striped lengthwise with white and black. In the latter part of May, or early in June, this beetle gnaws through the bark of the tree, leaving an aperture like a gimlet hole, and proceeds to propagate its kind in the manner above described.

The grubs may very easily be destroyed, by scraping the back of the trunk and roots a little below the surface of the ground, all round the tree; and wherever they are, they produce more or less defect in the bark. Those which are only in the latter, may readily be killed, but those in the wood may be destroyed by piercing a small wire into the holes, or by cutting the grubs out with a small chisel or gouge. The wounds, thus caused in the tree, are far less injurious, however, than the devastations of these worms.

SHELTON BEACH,
Formerly of Monroe, Ct.

New York, Jan. 21st, 1849.

NEW MODE OF CULTIVATING THE VINE.

THE following is a translation of a paper lately read before the Academy of Sciences of Paris, by M. Persoz. His plan of manuring the vine at different periods of its growth, is very ingenious, and as far as we can judge, is worthy of a trial in this country:—

The new process which I propose for cultivating the vine, inasmuch as it enables us to make use of half of the land for growing nutritive plants, may at first sight appear to differ completely from the plans now adopted in vineyards. Such, however, is not the case, and, as those who have studied the various methods pursued in different countries will see, several of the recommendations here made have been already followed in practice. I acknowledge this the more readily, as it enables me to appeal, as a proof of their usefulness, to results obtained by long experience. In one respect, my plan differs from every other; for I propose that all the vine stocks in a certain space of ground should be brought together in a trench where, by one chemical action, the wood, and by another the fruit, may be induced to form. This I propose in consequence of having, by direct experiment, satisfied myself that, of the manures which are fit for the culture of the vine, some serve exclusively for the increase of cells; that is, of wood, and that others cause the development of the flower bud (fruit or grape); and the actions of these substances, instead of both going on at the same time, ought to be successive. By the application of these principles, the growth of the wood can be stopped at pleasure, whilst, by the ordinary methods, the same effect can only be produced by artificial and empirical means.

When it is wished that wood should be developed, the vines must be placed in a trench and covered with three or four inches of earth, with which have been mixed, for every square yard of the surface of the trench, 8 lbs. of pulverised bone, 4 lbs. of pieces of skin, leather, horns, tanners' refuse, &c., and 1½ lb. of gypsum.

When the wood is sufficiently formed, which will be in a year or two, according to circumstances, the roots must be supplied with salts of potash, in order that the fruit may be produced. For this purpose, it is necessary to spread over the trench,

at a distance of three or four inches from the buried wood, for every square yard of surface, $5\frac{1}{2}$ lbs. of a mixture formed of 8 lbs. of silicate of potash, and $2\frac{1}{2}$ lbs. of double phosphates of potash and lime. The trench is then to be filled up, and the roots have as much potash as they will want for a long time. To prevent, however, the exhaustion of the potash, it is as well to spread every year at the foot of the stools a certain quantity of the husks of grapes, which contains $2\frac{1}{2}$ per cent. of carbonate of potash, and will restore annually a large proportion of the potash that may have disappeared from the trench.

Hitherto the success of a vintage depended, *ceteris paribus*, in a great measure on the influence of the atmosphere. Thus, suppose a vine stock required 10 parts of potash to be enabled to bear fruit, if the action of heat and rain on the stones and earth in a state of decomposition could only furnish 5, the vintage would be bad. This danger will be avoided by the above system of culture, in which the vine must always have suitable food; but it is not to be forgotten that, although I promise the grape growers who shall follow the above plan an abundance of produce, I can by no means insure the quality of that produce; for quality must always depend on the temperature.

SUCCESSFUL GROWTH OF CRANBERRIES ON UPLAND.

An experiment of Mr. Winthrop Low, of Essex, on the cultivation of the common marsh cranberry on upland, is one of great interest. It establishes the fact, so far as it can be done in one year, that cranberries may be raised in perfection upon a dry upland soil, without artificial watering. The soil selected by him was, most of it, a sandy loam. It was perfect Indian-corn land. The soil is porous, and would not retain water, even if the ground were level.

As evidence of the completely upland nature of the soil, it may be stated, that a row of white beans was planted between every two of cranberry vines; and although it has not been a good year for white beans, Mr. Low has harvested nine bushels from the one hundred and twenty rods—a fact showing, also, that the land is not lost to the cultivator even the first year, indeed that the bean crop has defrayed a large part of the expense.

The cranberry vines had put out runners in many cases, from three to four feet long, and have all the marks and numbers of health and vigor. Sand was applied to about one half of the hills, but without any apparent advantage whatever. The attention of the committee was called particularly to this fact, because the experiments in Barnstable county seem to have been all made with sand, and it is there thought and declared to be indispensable. There was no artificial watering. The cranberry sods were taken up, as appears, on the 15th of May, and set out on the 16th, 18th, and 19th.

It should be borne in mind, however, by way of caution, that there had been more wet weather during the following six months, than the average of the previous four years, or indeed any one of them. The whole quantity during the months of May, June, July, August, September, and October,

1847, was $25\frac{1}{2}$ inches; while during the same months in 1846, there was but $15\frac{1}{2}$ inches; though in 1845 the quantity was as great as this year, wanting $2\frac{1}{2}$ inches.

It should be recollected, too, that this is the first year, and what the effect of the winter will be without the indispensable presence of water, as the Yarmouth Register would say, remains to be seen. The fact, that the roots could be taken dripping from their native meadow bed, on the 15th day of May, put into a corn field soil, and then, with nothing but the rain of heaven upon them, in five short months to take root downward, and bear fruit upward, is most extraordinary. A specimen of the fruit appeared to be as good as the uncultivated fruit of the meadows. The quantity was one bushel and thirteen quarts. The land was carefully measured, and found to contain 120 rods. It ought to be added here, that the field exhibited a case of clean culture; weeds and grass having both yielded to the hoe.—*Condensed from Transactions of the Agricultural Societies of Mass.*

DRIVING HOGS EAST.

WHEREVER there is a penny to be made the Yankees are on hand to make it. Driving store hogs from Northern Ohio to the Brighton market, has become quite a business, and a profitable one, too. A shrewd Yankee, from the Berkshire hills, comes this way with money in pocket, travels round among the Buckeyes ready for a bargain, and soon picks up a drove of several hundred hogs at from 1 cent to $1\frac{1}{2}$ cents per pound. He buys a few sleek horses, and then, with a hired hand or two, starts his grunners for down east. He drives them at the rate of 12 to 15 miles per day, feeds them well, and in about 50 days reaches Albany, where the swine are shipped on the cars for Brighton, and, increased in weight by the journey, they there bring from 5 to 6 cents per pound, alive and squealing, and are scattered among the farmers in the region round about, to be fattened for customers and a market.

The horses are matched and sold at a handsome profit, and the penny being well turned, the Yankee is ready for another speculation. A drove of 600 hogs passed through the city yesterday for Brighton, bought principally in Hardin and Houron counties.—*Cleveland Herald.*

PRESERVATION OF BOOKS AGAINST MILDEW.—I lightly washed over the back and covers of some books with spirits of wine, using as a brush the feather of a goose quill. I frequently saw the books during the next five years, and I have occasionally seen them since, and there has not, so far as I am aware, been a single spot of mildew on them since the spirits of wine were applied.—*Builder.*

WELLERISM.—“Come, get up—you’ve been in bed long enough,” as the gardener said when he was pulling up radishes.

DRINKING water, in moderation, neither makes a man sick, nor in debt, nor his wife a widow.—*Spanish Proverb.*

Ladies' Department.

RECIPES FOR THE LADIES.

I HOPE my dear friends will not imagine for a moment that I neglect their interests while taking notes. Here is proof that I am still mindful to pick up all little items like the following for future use:—

Louisiana Muffin Bread.—Take two pints of flour and one and a half of sifted corn meal, two spoonfuls of butter, one spoonful of yeast, and two eggs, and mix and bake for breakfast. It is good.

Hopping Johnny (jambalaya).—Take a dressed chicken, or full-grown fowl, if not old, and cut all the flesh into small pieces, with a sharp knife. Put this into an iron pot, with a large spoonful of butter and one onion chopped fine; steep and stir it till it is brown; then add water enough to cover it, and put in some parsley, spices, and red pepper pods, chopped fine, and let it boil till you think it is barely done, taking care to stir it often, so as not to burn it; then stir in as much rice, when cooked, as will absorb all the water, which will be one pint of rice to two of water; stir and boil it a minute or so, and then let it stand and simmer until the rice is cooked, and you will have a most delicious dish of palatable, digestible food.

Something for the Children.—Make a dish of molasses candy, and, while it is hot, pour it out upon a deep plate, and stir in the meats of pecans, hickory nuts, hazle nuts, or peanuts, just as thick as you can stir them in, and then let it cool. Be careful and not eat too much of it, for it is very rich. It is a very nice dish for evening parties of the dear little girls and boys; and I have known some "big children" to like it pretty well.

SOLON ROBINSON.

Alabama, March 25th, 1849.

WHAT CAN BE DONE BY A FARMER'S WIFE.—Mrs. John Torton, of Lower Penn's Neck, sold, on board the steamer Express, on Friday last, sixty pair of fowls for sixty dollars. This lady has sold the past season \$163 worth of poultry. A friend assures us that those sold by Mrs. T. on Friday, were much in advance of any poultry on board the boat that day, though the whole amount of sales exceeded \$300. A gentleman of Delaware was so much pleased with the poultry, or the sale, or both, that he purchased of Mrs. T. some of her live stock at \$1 each.—*National Standard.*

THE WAY TO WIN A HUSBAND.—If your sweetheart happens to call about supper time, go down into the kitchen and take a mutton chop, broil it nicely over a red fire, and set before him, with pickles and a jug of good ale. Whisper softly in his hearing, the words, "I did it." You will find this a very likely way indeed to win him.—*Exchange.*

A GOOD WIFE.—When a daughter remarks—"Mother, I would not hire help, for I can assist you to do all the work of the kitchen," set it down that she will make somebody a good wife.—*Uncle Sam.*

Boys' Department.

EXPERIMENT FOR THE BOYS.

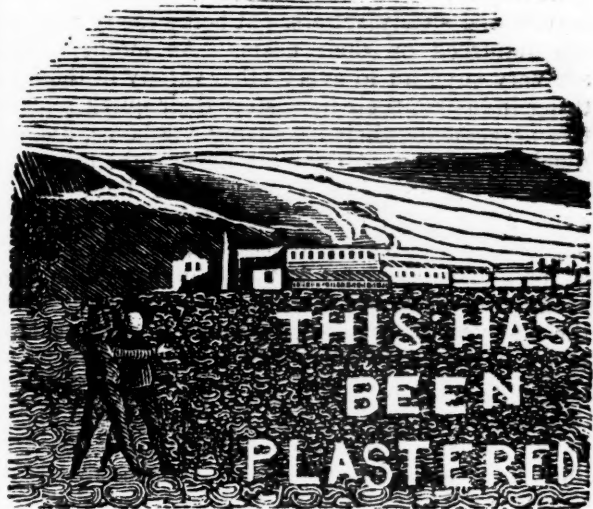


FIG. 42.

WHEN the soil and season are favorable, if plaster of Paris be sown, in the spring, upon grass already commenced growing, the product of the crop is often doubled. The grass then takes a lively green color and an extraordinary vigor, which causes it to contrast strongly with the portions not plastered. When Dr. Franklin wished to introduce the use of plaster into America, in order to convince his countrymen of its efficacy, he sowed in letters upon a clover field, in Washington, with powdered gypsum, the following phrase, as indicated on the adjoining cut:—"THIS HAS BEEN PLASTERED."

The effect of the plaster brought these words up in bold relief in greener and more vigorous stalks; and the consequence was, everybody was convinced of its highly-fertilizing powers, and it has been rendered popular in this country ever since.

GAME AND DORKING FOWLS.

I HAVE, for many years, been an admirer of poultry, and have in turn kept most of the varieties, from the little-booted Bantam, to the gigantic, long-legged Malay; but, all properties considered, I decidedly prefer the game fowl or the Dorking. True, they are very different in characteristics; as different as the thorough-bred is from the dray horse, and fill two very different positions. As an amateur, give me the game bird before all others. The richness of his plumage, its closeness, its brilliancy, its changeable colors and glossiness, is certainly unrivalled in the poultry courts. Then his symmetry, the elegance of his every movement, his bold and fearless bearing, his undaunted courage, and lofty carriage, all testify to his high breeding; and yet, to the exacting, pert, and coquetish beauties of his household he is the very model of gentle manners, courtesy, and attention; but it extends not a single point beyond. Lay but a finger rudely on any of his chosen ones, and you will find it is a word and a blow with him, and the blow comes first!

But to return to the mere matter-of-fact value of this breed, I claim that they are a very hardy,

healthy fowl, small consumers, very industrious in seeking to provide for themselves, and, therefore, little dependent on hand feeding. They are good layers, and steady setters, not being easily alarmed, nor disturbed on their nests. As mothers, they are very superior to every other variety in their untiring industry, their light step, their quick and active movements, their increasing vigilance, and unflinching courage. They are never taken by surprise, and seldom lose a chicken. I have seen a game hen rise ten or twelve feet in the air to do battle with a hawk; and when thus met, the bird of prey soon becomes shy of the encounter, and seeks its food where there is less resistance. After the first year of my keeping game fowls, I seldom saw a hawk hover over their feeding ground! On the table, their meat will be found remarkable for its fine, short grain, high flavor, and abundant juice. It is, however, generally objected to them, that they are pugnacious, and consequently the chickens are often blinded, &c., &c.; but though I took particular pride in the purity and high breeding of my birds, I was never troubled in that way; and I remember to have seen round the barn and stables of Mr. * * *, a man of game-cock notoriety, no less than fifteen or twenty stags, (as they are technically called,) or yearling cocks, and not one of them with a ruffled feather!

Birds having a wide range, roosting in different places, and not in the daily habit of seeing each other, would undoubtedly be more disposed to fight than such as are kept more closely together. My own objection to them was, their impatience of confinement to a yard; and they were so light on the wing, it was difficult to prevent their flying out at will. Their hasty tempers will not permit much interference, and therefore they are not suited to a chicken coop; indeed, the less you interfere with the game hen and her brood the better; for she is fully competent to take care of herself and chickens without your aid. The marketman prefers a larger and more imposing-looking fowl on his stall; not so, however, with the consumer, after his attention has once been called to their superiority on the table.

For the Dorking, I also claim a *degree* of beauty, in its thick, close plumage, formerly of the most unsullied white, now speckled, or rather spangled with a darker color, sometimes of a rich brown, but certainly not comparable to the games and some others in its brilliancy. They can, however, boast size without coarseness, and are of a large, round, compact form, full in the breast, broad across the pinions, and wide in the saddle, with a good thigh and a short leg. For constitution, hardiness, and endurance of cold, they are not to be beaten; at least, such is my experience of them in a climate where the winter range of the thermometer is frequently, and for days together, below zero. My yard is small, and my hen house is a simple wooden shed, with a half door to it and one small window of four squares of glass. I am the more particular on the points of *constitution*, from having heard complaints of their not being a hardy or healthy fowl, which I must attribute to want of management on the part of their owners. They are with me constant layers; their eggs are large and rich; they are steady and patient sitters; very gentle on the nest; and though large and heavy,

are not clumsy. The additional, or fifth toe, I consider a disadvantage, and should soon breed it off but that it is a distinguishing feature of this variety. I recommend, however, its being taken off, one joint from the leg, when the chicken is three or four days old, leaving only a rudiment as an evidence of descent; for, as a breeder, I despise a mongrel fowl as much as I do a mongrel animal.

As mothers, the Dorkings are kind, careful, and attentive, naturally quiet and trustful; consequently, much more manageable under coops and elsewhere than the game hen; but she is neither so watchful nor so alert, nor so active in the defence of her brood; neither will she make such a fuss, nor bestir herself at the chirp of a stray chicken with half the energy of the other high-tempered bird. Indeed, her rule over her family is not so strict and effective; but then, you can lend your own aid to put matters to rights without endangering a dozen others of the little family, or risking your face and eyes, which you could scarcely do with a game hen.

On the poulterer's board, as well as on the more hospitable one of the consumer, the Dorkings make an imposing appearance from their size and the whiteness of their flesh. The light color of the leg also tends to give them a delicate appearance. They are, in England, preferred to caponize, and are the epicure's favorite fowl. They are greater consumers than the games; but then they are a larger bird, and fat easier, and carry more of it.

As a lad, I commenced by keeping Dorkings, and now I have returned to them again. They are, with me, subject to no disease; neither gapes, pip, rouse, staggers, nor any other of the numerous maladies I hear of, affect my chickens! I raise from fifty to sixty every year for my own table, and seldom lose one, excepting from birds of prey, against which the Dorking is no match; though not wanting in courage, she is deficient in activity. I feed *nothing but whole or cracked corn, dry*, to my oldest fowl, or my *youngest chicks*, with meat occasionally, when they cannot find worms for themselves. This simple course of feeding, with care to avoid breeding from *too close affinities*, is, in my opinion, the sole cause of my success with the Dorkings. My nest boxes are so arranged that the hen and chickens are by themselves for some days; and consequently the latter are not exposed to the numerous casualties which beset them in removals, or in being allowed to go forth at the will of the hen. R.

Butternuts, N. Y., March 15th, 1849.

BUSINESS FIRST, THEN PLEASURE.

A MAN who is very rich now, was very poor when he was a boy. When asked how he got his riches, he replied:—"My father taught me never to play till all my work for the day was finished, and never to spend money till I had earned it. If I had but half an hour's work to do in a day, I must do that the first thing, *and in half an hour*. After this was done, I was allowed to play; and I could then play with much more pleasure than if I had the thought of an unfinished task before my mind. I early formed the habit of doing everything in its time, and it soon became perfectly easy to do so. It is to this habit that I now owe my prosperity." Let every boy who reads this, go and do likewise.—*Wright's Casket*.

FOREIGN AGRICULTURAL NEWS.

By the steamer Herman we are in receipt of our foreign journals to 26th March.

MARKETS.—With the exception of Indian meal, American produce had a downward look, though very little change in prices had actually taken place since our last.

Best Cleansing Drink for a Cow after Calving.—Give her 1 lb. of Epsom salts and a tablespoonful of ground ginger, in a quart of good, warm ale.—*Dublin Paper.*

Facts in Cooking Meats.—From an average of the nicest experiments made on good meat, moderately fat, 4 lbs. of beef lose 1 lb. in boiling, 1 lb. 3 oz. in baking, and 1 lb. 5 oz. in roasting; while 4 lbs. of mutton lose 14 oz. in boiling, 1 lb. 4 oz. in baking, and 1 lb. 6 oz. in roasting.

Effects of the Game Laws in Great Britain.—It is asserted by the "Suffolk Chronicle," that the destruction of the game preserves, alone, would produce greater crops in England than all the artificial manures in the world.

Cucumbers have been selling in Covent Garden Market, London, at prices varying from 4s. to 9s. a couple.

Guano for Rose Bushes.—Genuine Peruvian guano, applied in wet weather, is an excellent manure for roses.—*Gardeners' Chronicle.*

Grafting Grape Vines.—This operation may be performed precisely as in the case of apples and pears, provided the following precautions are attended to:—The wood on which you wish to fit the graft may be one or more years old. Let the buds push into leaf, then graft, and allow the bud opposite the graft to grow till the buds of the scion begin to swell; then stop the other above the first joint, and check it entirely as soon as the scion pushes into leaf.—*Id.*

A Saturday's New Moon a Wet One.—Dr. Forster, of Bruges, has made a communication to the Royal Astronomical Society, in which he declares that by journals of the weather kept by his grandfather, father, and himself, ever since 1767, to the present time, whenever the new moon has fallen on a Saturday, the following twenty days have been wet and windy in nineteen cases out of twenty.

Roarers Disqualified for Breeding.—At a late meeting of the Royal Agricultural Society of England, Mr. Cator suggested that all stallions and mares known under the name of "roarers," should be disqualified for competing for prizes offered by the society for improving the breed of horses.

How to Kill Lice.—Tobacco water, or the ammoniacal liquor from the gas works, is recommended by the Agricultural Gazette for destroying lice.

Manures Favorable to the Potato Crop.—Mr. J. Cuthill, florist, Camberwell, used 30 cwt. of salt and 30 bushels of soot per acre on light sandy land, planted in February. The crop entirely escaped.

Mr. C. Jeffery, farmer, Antony, states that Mr Peel, at Trenant Park, planted his potatoes in October, manured with salt, soot, and charcoal, and had an excellent crop, without one single diseased potato.

The Bishop of Carlisle reports from Cumberland that no disease appeared in October-planted potatoes, when the furrows at the time of planting were dusted with a mixture of soot, salt, charcoal, wood ashes, and gas tar.—*Gardeners' Chronicle.*

Adulterated Flour Detector.—M. Boland, a baker, of Paris, has invented an ingenious instrument, called by him the aleurometer, the purpose of which is to indicate the panifiable properties of wheat flour. The indication depends upon the expansion of the gluten contained in a given quantity of flour, say 500 grains, when freed by elutriation from its starch. A ball of gluten being placed in a cylinder to which a

piston is fitted, the apparatus is exposed to a temperature of 150 degrees; as the gluten dilates, its degree of dilatation is marked by the piston rod. If 25 degrees of dilatation are not obtained, the flour is rejected, the best flour usually giving from 38 to 50 degrees. From experiments which have been made by Chevreul and Payen, it appears that the dilatation shows correctly the degree of deterioration which the wheat flour has undergone; and consequently the aleurometer offers itself as an instrument of practical importance. The same principle may be applied to various other purposes; indeed, Silberman has constructed a new alcoholmeter, of a character similar to the aleurometer.—*Athenæum.*

Guano a Preventive of the Potato Disease.—The "Gardeners' Chronicle" having made extensive inquiries as to the effect of the time of planting, the use of lime and the several sorts of manures upon the potato as promoting or preventing disease, has given the following results of the use of guano and farm-yard dung:—"Guano.—Under all circumstances, two crops manured with guano have been saved out of three; that, if applied to autumn and early spring-planted crops, it is advantageous, but that it is dangerous in late planting. Farm-yard Dung.—There can be no doubt that, if used abundantly, in a very rank condition, and especially in this state to late-planted crops, it is an extremely disadvantageous application.

This is not merely the result of a single experiment of three crops, but of thirty-six good cases to twenty-four bad. The editor states, moreover—"We do not find, upon searching through our columns for the last four years, that we have more than three bad cases against nine reported to be good." This may be considered triumphant testimony in favor of guano. We need scarcely add that the Peruvian should be used, and care taken to obtain it genuine.—*Mark-Lane Express.*

The Value of Ornamental Shrubs in England.—Three hundred and seventy-eight lots of Camellias, the greater portion of them plants of a large size, and a few lots of Rhododendrons and Andromeda floribunda were brought to the hammer last week by Mr. Stevens, in Messrs. Loddiges' nursery, Hackney. The highest price realized on the occasion was 19l. 8s. 6d. for Camellia incarnata, a magnificent tree 15 feet high; Speciosa, 9 feet high, fetched 19l.; Altheæflora, 10 feet, 14l.; Chandlerii, 12 feet, a magnificent tree, 14l.; Myrtifolia, 12 feet, 12l.; Rossii, 10 feet, 9l. 10s.; double white, 5 feet, 9l. 15s.; Eximia, 12 feet, 9l.; and Corallina, 8 feet, 9l. 15s.; the other lots fetched from 2l. to 8l. each. Rhododendron nilagiricum fetched 2l. 17s. 6d.; R. barbatum, 1l. 12s.; and plants of R. robustum, from 1l. 18s. to 2l. 2s. A specimen of R. arboreum, 8 feet high, fetched 4l. 15s.; and handsome plants of Andromeda floribunda, 17s. each.

Interesting Experiment in Feeding Cows.—In Switzerland they estimate that hay loses at least a third of its nutritive value by the process of fermentation. The following experiments were made upon cows:—Thirteen cows were put up, and each got daily 36 lbs. of newly-made hay, and gave, one with the other, 25 lbs. of milk; the same got afterwards, and during 15 days, 36 lbs. of old hay of the preceding year, from the same meadow. They gave, after the fifth day, 20 lbs. of milk; after 10 days, 14 lbs.; and the last two days, only 12 lbs. The same cows were again put upon new hay, and gave, after the fifth day, 18 lbs.; after the tenth day, 22 lbs.; and after the fifteenth, gave again 25 lbs. This experiment shows clearly that the hay during the process of fermentation loses a great deal of its nutritive value, and if there were means of preventing the fermentation, it would be of great service.

Editors' Table.

NEW VARIETIES OF GRAIN FROM ABROAD.—A great variety of grains have been sent us by James Townsend, Esq., which have been recently procured in different parts of Europe, Western Asia, &c., where they are considered as among their best sorts. Having been collected at considerable expense and trouble, and a large portion of them gratuitously distributed, the balance, embracing about 150 packages of samples, are held at the price of 25 cents per sample, to partially reimburse the expenses incurred in procuring them. They embrace 20 varieties of wheat, 10 of barley, 9 of oats, 5 of rye, and 3 of buckwheat. Any orders for the above may be addressed to A. B. Allen & Co., 189 Water street, New York.

THE NEXT ANNUAL FAIR OF N. Y. STATE AGRICULTURAL SOCIETY.—We understand that Governor Fish has received a letter from President Taylor, saying that he intended to be present at the State Fair, to be held at Syracuse on the 12th of September next. If such be the case, it is predicted that, with this attraction, alone, it will be the largest fair ever witnessed in the United States. Thousands of people from various parts of the Union, as well as distinguished persons from abroad will eagerly embrace this opportunity to see the as yet unconquered hero of some of the greatest battles, military and political, ever fought upon this continent.

HONOR TO WHOM HONOR, &c.—On the 31st of January last, the Institute of France awarded the "Cross of the Legion of Honor" to Dr. Charles T. Jackson, of Boston, as the prime discoverer of etherization. It is extremely gratifying to find that our own views concur with the decision which has been pronounced in favor of Dr. Jackson, by the most enlightened body of scientific men in the world.

COMPARATIVE PRICES OF CORN.—The average price of Indian Corn, at New York, is estimated at 56 cents per bushel; at New Orleans, 40 cents; and at St. Louis, 27 cents.

PROLIFIC GEESSE.—We are informed, says the Boston Cultivator, that Mr. John Alney, of Tiverton, R. I., raised the last year, from four geese and one gander, one hundred and one goslings; and from the same flock in the year 1849, ninety-five goslings; total, 196 goslings in two years.

CRANBERRIES.—This fruit grows abundantly in Wisconsin and Minnesota. It is proposed to call the latter the "Cranberry State."

A NEW EVERGREEN.—The Florida yew, (*Torreya taxifolia*), is a handsome looking tree, somewhat resembling the European yew, but not so dark in its foliage, and is sufficiently hardy to withstand the climate of New York, and probably that of localities further north. It would form an appropriate object for planting in rural cemeteries, and is well worthy of general cultivation as an ornamental tree.

PRACTICAL AGRICULTURE; or an Attempt to reduce the Theory and Practice to the Comprehension of the Operator. By William Partridge. New York: pp. 42, 12mo. The author of this little work is well known to many of our readers as one of the contributors to our early volumes, which, it is presumed would be a sufficient guarantee for them to read the work before us. It appears that up to the age of thirty, he was attentive to farming in the old country, as a secondary object, operating on one hundred and twenty acres. During that time, he made many experiments, on land and fruit trees, which have lately been brought forward as new; such as draining, pairing and burning, using cool ashes, &c., &c. The work may be had of C. M. Saxton, 121 Fulton street, at 25 cents.

A PRACTICAL TREATISE ON THE MANAGEMENT OF FRUIT TREES; with descriptive lists of the most valuable fruits for general cultivation; adapted to the interior of New England. By George Jaques. Worcester, Mass.: Erastus N. Tucker, pp. 256, 12mo. Price, 50 cents. This little work, as indicated in the title, is of a local character, and appears to have been founded on nearly eight years' practical experience of the author in the cultivation of nursery and orchard trees. From a hasty glance through its pages, we should judge that it would be a useful guide for the section of country for which it is designed.

THE FAMILY KITCHEN GARDENER; containing plain and accurate descriptions of all the different species and varieties of culinary vegetables; with their botanical, English, French, and German names, alphabetically arranged, and the best mode of cultivating them, in the garden or under glass; with a description of implements and medicinal herbs in general use; also, descriptions and characters of the most select fruits, their management, propagation, and culture. Illustrated with twenty-five engravings. By Robert Buist. New York: J. C. Riker, pp. 216, 12mo. Price, 75 cents. Nothing appears to have been admitted in this work that is not of a practical character. "It may be received as the result of thirty years' experience and observation on the cultivation of vegetables and fruits."

YANKEE HOGS.—The following is a list of hogs and pigs slaughtered the last season in the town of Chesterfield, Hampshire county, Massachusetts:—

	Weight.
1 hog by Chapman Rhodes, - -	611 lbs.
1 " Samuel House, - -	532 "
1 " " - -	471 "
1 " Edsol Witherell, - -	497 "
1 " Edwin Damon, - -	493 "
1 " " - -	492 "
1 " Ebenezer Edwards, - -	477 "
1 " " - -	469 "
1 " " - -	441 "
1 " Jonathan Ring, - -	428 "
1 " " - -	406 "
1 " Levi Witherell, - -	429 "
1 " " - -	419 "
1 " Daniel Sylvester, - -	429 "
1 Pig, 8 months old, by Lewis Higgins, -	401 "
1 " 9 months old, by David M. Todd, -	426 "
1 " 7 months 23 days old, by " -	392 "
1 " 9 months old, by Job C. Cudworth -	396 "

The average weight of six of the best hogs was 517 lbs.; and that of the pigs, 384 lbs.

ARABIAN CALVES.—The two calves procured by Lieut. Lynch, in his Dead-Sea Expedition, and presented by him, through the Secretary of the Navy, to the agriculturists of Virginia, were brought to Richmond on Wednesday. They are red, like most of the Devonshire breed, but are taller and more slender. Their heads and limbs remind one very much of the deer.—*Neal's Sat. Gazette.*

THE BEST KNIFE CLEANER.—Charcoal, ground to powder, is said to be one of the best things ever discovered to clean knives.

HOW TO GET RID OF CROWS.—A cotemporary says that some acute fellow "down east" has discovered a novel mode of getting rid of the crows. You must take some shelled corn, and run a horse hair through the grain with a needle, and tie a knot in the hair close to the grain, and sow them in corn fields, and the crows will pick up this grain with the hair in it, and it will tickle them, and they will kill themselves a scratching. This is giving them the "Old Scratch" with a vengeance.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, APRIL 16, 1849.

ASHES, Pots,.....per 100 lbs.	\$7 00	to	\$7 00
Pearls,.....do.	7 00	"	7 25
BALE ROPE,.....lb.	6	"	8
BARK, Quercitron,.....ton.	26 00	"	28 00
BEANS, White,.....bush.	75	"	1 25
BEESWAX, Am. Yellow,.....lb.	19	"	22
BOLT ROPE,.....do.	11	"	12
BONES, ground,.....bush.	40	"	55
BRISTLES, American,.....lb.	25	"	65
BUTTER, Table,.....do.	15	"	25
Shipping,.....do.	9	"	15
CANDLES, Mould, Tallow,.....do.	10	"	13
Sperm,.....do.	25	"	40
Stearic,.....do.	20	"	25
CHEESE,.....do.	5	"	10
COAL, Anthracite,.....2,000 lbs.	5 00	"	6 00
CORDAGE, American,.....lb.	11	"	13
COTTON,.....do.	6	"	10
COTTON BAGGING, Amer. hemp,....yard,	15	"	16
FEATHERS,.....lb.	30	"	40
FLAX, American,.....do.	8	"	9
FLOUR, Northern, Southern and West'n bbl.	4 50	"	5 75
Fancy,.....do.	6 00	"	6 75
Richmond City Mills,.....do.	6 75	"	7 00
Buckwheat,.....do.	—	"	—
Rye,.....do.	2 75	"	2 88
GRAIN—Wheat, Western,.....bush.	1 00	"	1 20
Red and Mixed,.....do.	95	"	1 10
Rye,.....do.	58	"	59
Corn, Northern,.....do.	65	"	60
Southern,.....do.	62	"	57
Barley,.....do.	62	"	65
Oats,.....do.	29	"	40
GUANO, Peruvian,.....2,000 lbs.	50 00	"	50 00
Patagonian,.....do.	35 00	"	40 00
HAY, in bales,.....do.	42	"	50
HEMP, Russia, clean,.....ton.	215 00	"	230 00
American, water-rotted,.....do.	160 00	"	220 00
American, dew-rotted,.....do.	140 00	"	200 00
HIDES, Dry Southern,.....do.	7	"	8
HOPS,.....lb.	4	"	12
HORNS,.....100.	2 90	"	10 00
LEAD, pig,.....do.	4 90	"	5 00
Pipes for Pumps, &c.....lb.	5	"	7
MEAL, Corn,.....bbl.	2 50	"	2 75
Corn,.....hhd.	13 00	"	13 50
MOLASSES, New Orleans,.....gal.	25	"	30
MUSTARD, American,.....lb.	16	"	31
NAVAL STORES—Tar,.....bbl.	1 75	"	2 00
Pitch,.....do.	1 25	"	1 75
Rosin,.....do.	1 00	"	1 13
Turpentine,.....do.	2 50	"	3 00
Spirits Turpentine, Southern,....gal.	33	"	35
OIL, Linseed, American,.....do.	59	"	61
Castor,.....do.	1 25	"	1 50
Lard,.....do.	60	"	70
OIL CAKE,.....100 lbs.	1 00	"	1 50
PEAS, Field,.....bush.	75	"	1 25
Black-eyed,.....do.	1 25	"	1 50
PLASTER OF PARIS,.....ton.	2 25	"	3 00
Ground, in bbls.,.....of 300 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,.....bbl.	9 00	"	13 50
Prime,.....do.	5 00	"	8 50
Smoked.....lb.	6	"	12
Rounds, in pickle,....do.	4	"	6
Pork, Mess,.....bbl.	10 00	"	13 00
Prime,.....do.	7 00	"	10 00
Lard,.....lb.	7	"	8
Bacon sides, Smoked,.....do.	3	"	4 1/2
In pickle,.....do.	3	"	4
Hams, Smoked,.....do.	5	"	9
Pickled,.....do.	4	"	7
Shoulders, Smoked,.....do.	4	"	5
Pickled,.....do.	3	"	4
RICE,.....100 lbs.	2 88	"	3 38
SALT,.....sack,	1 17	"	1 30
Common,.....bush.	20	"	35
SEEDS—Clover,.....lb.	6	"	7 1/2
Timothy,.....bush.	2 00	"	3 50
Flax, clean.....do.	1 30	"	1 40
rough,.....do.	1 25	"	1 30
SODA, Ash, cont'g 80 per cent. soda,....lb.	3	"	—
Sulphate Soda, ground,.....do.	1	"	—
SUGAR, New Orleans,.....do.	4	"	6
SUMAC, American,.....ton,	35 00	"	37 00
TALLOW,.....lb.	7	"	8 1/2
TOBACCO,.....do.	3	"	8
WHISKEY, American,.....gal.	21	"	23
WOOLS, Saxony,.....lb.	35	"	60
Merino,.....do.	25	"	35
Half-blood,.....do.	20	"	25
Common do.....do.	18	"	20

NEW-YORK CATTLE MARKET.

At Market.—1,200 Beef Cattle, (100 southern, the remainder from this state and east,) 80 Cows and Calves, and 3,000 Sheep and Lambs.

Beef Cattle.—The market is firm in prices. The sales run from \$6 to \$9 per hundred. The number of head on hand is estimated at 200.

Cows and Calves.—All taken at from \$20 to \$45.

Sheep and Lambs.—They are getting more plenty. Sales from \$1.75 to \$5.75. The number unsold, 400.

REMARKS.—Grain and Flour have fallen considerably since our last; Pork somewhat less. In other products we have little change to notice.

The Weather is fine, though unusually cool, and consequently the spring rather backward. Wheat is looking well, and is now very forward at the south. In Georgia, it will be soon ready to cut. We hear fair accounts, thus far, from the cane, cotton, rice, and tobacco; but it is much too early to give any opinion as to these crops. Northern grain and grass are getting up well, and the indications are favorable.

To CORRESPONDENTS.—Communications have been received from R. L. Colt, Solon Robinson, C., Samuel Allen, H. N. Baker, Calvin Coulter, Jr., J. McKinstry, E. S., and Reviewer.

Application of Guano and Poudrette.—D. R. S., of West Norwalk, Ct.—Guano may be sown on meadows any time previous to the first of June, at the rate of 300 lbs. to the acre. It should be mixed with about ten times its weight of potash marl or rich loam, with a slight sprinkling of charcoal dust or plaster of Paris. A half pint of poudrette applied in the hill, at the time of planting Indian corn, followed by spreading around it about the same quantity of leached ashes at the second hoeing, has been attended with good results.

PERUVIAN GUANO

FOR Sale, at Bating Hollow, Long Island, by
Jy3t AZEL DOWNS.

MORSE'S GREY.

THIS celebrated horse will stand the ensuing season at the stable of James Rice in Speigletown, three miles north of the village of Lansingburgh. He is a beautiful dapple grey, 15½ hands high, strongly and finely proportioned, has trotted his mile in 2 minutes and 50 seconds, is a square trotter, and combines first-rate trotting qualities and great powers of endurance, with unsurpassed gentleness and docility. His colts are justly celebrated for speed, bottom, and good temper, and are eagerly sought after in the market, and command prices ranging from \$150 to \$500. The very high reputation of his stock as road horses, and the extraordinary prices they command, renders him by far the most profitable horse to breed from of any in the country. Mares sent from a distance will have such attendance and keeping as the owners desire, and upon the most reasonable terms. The horse will be under the charge of his former owner, Mr. Calvin Morse. Terms, \$10 the season. Insurance to be agreed upon. Communications addressed, J. T. GRANT, P. M. Junction, Rensselaer county, will receive prompt attention.
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COLE'S AMERICAN FRUIT BOOK.

S. W. COLE, Esq., Editor of the New-England Farmer, and author of the popular work entitled the American Veterinarian, of which 22,000 copies have already been published, has, after years of patient labor and close investigation, completed his great work, entitled "Cole's American Fruit Book,"—a work which we believe is destined to have a more widely-extended circulation than any similar work, ever before offered to the American public. We believe so for the following reasons:—

1st. It is a mature work and a practical one, one upon which Mr. Cole has spent many years of study and close examination, and knowing the wants of the community, has met those wants in a plain, concise, and familiar manner, avoiding technicalities, and scientific specifications and definitions, useful only to the few, he has made a work intelligible to all. It is emphatically a book for the people.

2d. It will have an unprecedented sale on account of its cheapness. It makes a volume of 288 closely-printed pages. Illustrated with nearly two hundred beautifully-executed engravings, by Brown, and is sold for 50 cents firmly bound in leather, and 62½ cents in fancy cloth, with gilt backs. It contains full directions for raising, propagating and managing fruit trees, shrubs, and plants, with a description of the best varieties of fruits, embracing several new and valuable kinds; embellished with engravings, and outlines of fruit trees, and various other designs.

100 agents, active, intelligent, and honest, are wanted to sell this book, in every state in the Union. A cash capital of from \$25 to \$50 will be necessary. Address, (post paid,) the publishers, John P. Jewett & Co., 23 Cornhill, Boston. C. M. SAXTON, Agent for N. Y. city, and southern counties of New Jersey.
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SHORTHORN DURHAMS AT AUCTION.

THE subscriber being about to dispose of 50 acres of his farm, will offer at public sale 30 head of Shorthorn Durham cattle, (being about one half of his present herd,) on the 18th day of June next, at 11 o'clock in the forenoon, consisting of yearlings, two-year and three-year-old heifers, cows, and 11 young bulls from 10 months to 2½ years old. Great care has been observed, and considerable expense incurred in selecting and breeding this stock, with reference to purity of blood and dairy qualities. The awards of the New-York State Agricultural Society, and the American Institute, of New York, attest the estimation in which this stock is held, whenever it has been exhibited for competition. About eight head of the above cattle are a purchase made from E. P. Prentice, Esq., of Albany, last May, being all of the shorthorns of that gentleman, and the product of his four selected cows, retained at his public sale. The animals have the strain of blood of the herd of Mr. Whitaker, of England, from whom Mr. Prentice made his principal importations. The other part of the lot of young animals partakes largely of the blood of the celebrated herd of Thomas Bates, Esq., of Yorkshire, England, from whom my importations have been derived, and are mostly of the get of my imported bulls, Duke of Wellington, and the premium bull Meteor. The heifers and cows are and will be principally in calf by these bulls.

For the information of southern gentlemen, who desire to introduce Durham stock into that region, and who entertain the opinion that climate is incongenial to its successful propagation there, I here introduce an extract from a letter I received from A. G. Sumner, Esq., editor of the "South Carolinian," dated Columbia, 25th January, 1849.

"The bull you sold Col. Hampton, of this state, gives him great satisfaction. He is a fine animal and I only wish you could see some 20 head of his get now in his yard. They are the most superb yearlings ever bred in the south."

Further particulars and pedigrees of the stock will be issued one month previous to the sale. A credit of 6 to 18 months will be given.

GEO. VAIL.

Troy, N. Y., April 1st, 1849.

STATIONERY, BLANK BOOKS, AND PAPER.

Francis & Loutrel, No. 77 Maiden Lane, N. Y.

MANUFACTURE all kinds of Blank Books and Stationery articles—Diamond Point Gold Pens—Letter Copying Presses—Manifold Letter Writers—superior Croton Ink, warranted to retain its jet-black color, which they sell at the very lowest prices.

We have also on hand every description of Foreign PAPER and STATIONERY—Cap, Letter, and Note Papers, Envelopes, Perforated Board, Bristol Board, Drawing Papers—Copy Books, Pocket Books, Card Cases, Port Folios, Scrap Books—Gold Paper, Tissue Paper—Chess Men, Backgammon Boards—Wax, Wafers, Slates, Pencils—Gold and Silver Pencil Cases—Writing Desks—Work Boxes—Quills—Tin Cash and Deed Boxes—and all articles kept by Stationers, at remarkably low prices.

Books suitable for County Clerks and Public Offices supplied. Printing, Ruling, and Binding executed at the lowest rates.

37 We should be pleased to have a call from those requiring articles in our line. Orders by mail will receive attention.

LEWIS FRANCIS,

FRANCIS & LOUTREL,

CYRUS H. LOUTREL,

Stationers, 77 Maiden Lane, N. Y.
Sept. 1st.**COMMERCIAL GARDEN AND NURSERY.**

PARSONS & CO., at Flushing, near New York. The proprietors of this establishment invite public attention to their large assortment of every desirable variety of Fruit and Ornamental Tree or Shrub. Their importations of everything new in Europe are annually continued, and they offer a very large variety of Ornamental Trees and Shrubs imported expressly for arboretums and pleasure grounds. Their collection of Roses is annually enriched by novelties from abroad, many of which may be found described in their new work on the Rose, recently published. Fruit Trees receive their particular attention, and are propagated under their personal supervision; this care, with their possession of extensive specimen grounds, in which is tested every variety of fruit they cultivate, enables them confidently to guarantee the genuineness of the varieties.

Their care in pruning and cultivation enables them also to send out thrifty and well-formed trees. From their large scale of propagation, they can offer to dealers very liberal discounts, where hundreds or thousands are taken. Orders or inquiries can be addressed to the proprietors at Flushing, near New York, where catalogues will also be furnished. They have established a Branch at Brighton Depot near Boston and by the entire success of their trees transplanted thither have thoroughly proved the superior adaptation of Long-Island Trees to the soil and climate of any part of New England. This they attribute to the perfect maturity attained by the wood before frost, which renders the trees suitable for transportation to any latitude.

At the season of transplanting, a salesman will be at their Brighton Branch to furnish those who may prefer obtaining them supply thence.

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VALUABLE REAL ESTATE FOR SALE IN VIRGINIA.

WITH a view of locating himself near a town for the convenience of educating his children, the subscriber offers for sale, on accommodating terms, one of the most productive estates in the northern neck of Virginia, within three miles of Potomac River, thirty miles of Alexandria, and twenty of Fredericksburg. This estate, consisting of several tracts, contains 25,000 acres, and is susceptible of division into three large farms, upon two of which are comfortable dwellings, and the accommodations required for a large family, with flourishing and productive orchards of choice fruits; on other portions of the estate there are several plain and comfortable dwellings. There are 500 acres of rich low grounds, which yield an average of 50 bushels of corn to the acre. The average from 150-acre fields of high low grounds is, in ordinary seasons, 35 bushels to the acre. The arable lands are for the most part in a high state of improvement, clover and plaster having been used for 25 years, and recently lime in large quantities. The barns upon two of the farms are within a mile of a navigable creek emptying into the Potomac. The wheat crop varies according to the soil, from 10 to 20 bushels to the acre. The average of the oat crop is 30 bushels to the acre. The freight on grain raised on this estate is per bushel, 3 cents to Alexandria and Georgetown, 5 cents to Baltimore, and 6 cents to Richmond. Upon a part of the tract, there is a good grist and saw mill. There are more than 1,000 acres of the original growth of timber, consisting of white and red oak, chesnut, yellow pine, some hickory and black walnut. The above estate is so conveniently supplied with wood for enclosures and fuel, and with water, as to admit of divisions among a number of purchasers preferring to own small tracts of land. Persons wishing to purchase the whole, or part of the premises, are invited to visit and examine them, and such as may desire more particular information, will please to address the subscriber, near Dumfries, Virginia, John Moncure, near Falmouth, Va., or Wm. H. Fitzhugh, Jr., Fredericksburg, Va. my lt.

WM. H. FITZHUGH.

THE INDEPENDENT.

A NEW RELIGIOUS NEWSPAPER, published weekly, by S. W. BENEDICT. Office 201 William street, N. Y.

This paper is under the united editorial control of Leonard Bacon, D.D., of New Haven, Rev. Joseph P. Thompson, of New York, Pastor of the Broadway Tabernacle Church, and Rev. Richard S. Storrs, Jr., of Brooklyn, Pastor of the Church of the Pilgrims. The most efficient assistance has also been secured in all the departments of the paper, both foreign and domestic, and everything that transpires in any part of the world, affecting the condition of man, will find the earliest record in its columns.

The paper is not the organ of any Christian sect or denomination; but as its editors and proprietors are all of them connected with the Congregational Churches of this city and Brooklyn, they will naturally look to their brethren connected with such churches, both at the east and the west, for sympathy and support. In return, they will endeavor to give them such information, advice or instruction, as may be most suited to their condition and wants as members of the great family of Christ.

The size of the paper is the same as of the largest of the other religious papers in this city.

Terms.—The price will be \$2.50 cents per annum for single subscribers, payable in advance.

Clergymen sending us four subscribers with \$10, will be allowed a fifth copy gratis for one year.

Advertisements of books, periodicals, schools, and of such matter as may be particularly important to churches, or religious families, will be admitted at the rate of 75 cents for 16 lines for the first insertion, and 50 cts. each subsequent insertion.

f.3t

VIRGINIA LANDS.

THE attention of Northern Farmers who wish to purchase in Fairfax County, Va., is invited particularly to two farms for sale, three miles east from Fairfax Court House, thirteen from Alexandria, and fourteen from the city of Washington. There are no buildings on either tract, but, by following the custom of the country, comfortable and temporary ones can be cheaply built. The soil is well adapted to farming purposes, and there is timber on them, near two sawmills.

These farms would sell in the north, for from \$50 to \$100 per acre, and can be bought here in a more pleasant and healthy climate, one for eight, the other ten dollars per acre, on easy terms, and a good title given.

Further information given, if requested, by T. R. Love, trustee, either personally, or by letter, (postage paid,) directed to Fairfax Court House, Va.

f. ft.

H. FULLER.

LAND FOR SALE.

FOR SALE—2,000 acres of land lying in the marl region of Eastern Virginia, and within two to seven miles of the town of Fredericksburg. Apply to LAYTON Y. ATKINS, dec. 1yr.

Fredericksburg, Va.

ANTHONY & EMERSON'S DOUBLE-ACTING ROTARY CHURN.

The attention of dairymen and persons interested in good butter is solicited to an examination of the merits of the above invention.

The proprietors feel confident that, upon investigation and trial, it will be pronounced the most *Practical and Common-sense Churn* ever brought before a discriminating public. The abundant testimonials, the universal approbation, and the spontaneous acknowledgments of all who see the churn in operation, or examine its principles, furnish ample proof of its merits.

NOTICES OF THE PRESS.

The operation of this churn before the Farmer's Club, in Wilmington, Del., is thus related by Col. J. S. Skinner, editor of the *Flow, the Loom, and the Anvil* :—

Until dinner was announced, the chief attraction was Mr. Anthony's famous "*Double-Acting Rotary Churn*," which Mr. Emerson had brought down from Philadelphia, that the members might have ocular demonstration of its miraculous performance.

Like Maelzel with his chess player, Mr. Emerson exposed the interior, to show that there was no witch nor witchcraft about it; and truly the whole contrivance seemed to be as simple as a salt box. Two gallons of fresh milk were there-upon poured into it, and every man pulled out his stopwatch to note its performance, six minutes being allowed. Odds in favor of time. Away went the churn, turning as light as a little, old grindstone, in the country, worn down to the size of a breakfast plate, and behold, at the end of five minutes the operator took off the cover and exposed the butyaceous particles finely separated from the milk, and ready to be served up and submitted to another sense at the dinner table.

Rotary Churn.—Messrs. Anthony & Emerson are exhibiting a patent Double-Acting Rotary Churn, in this city, by which excellent butter is produced in two minutes from sweet milk, a thing previously deemed impossible. It appears to be an excellent machine, and will save the producers of butter an immensity of labor.—*Philadelphia Ledger*.

We recommend to the examination of all interested in good living, the newly-invented *Double-Acting Rotary Churn*, by Messrs. Anthony & Emerson. One of its best recommendations is its *great simplicity*. It operates upon a beautiful principle—the mechanical action of the air—which is mingled with the cream in such a manner, that a thorough separation of the particles takes place, preventing the cream from frothing upon the surface, and doing its work with astonishing rapidity, and in the most thorough manner.—*Pennsylvania Inquirer*

We always take pleasure in recommending to the public all labor-saving and useful inventions. One of the best which we have seen for a long time, is Anthony & Emerson's *Double-Acting Rotary Churn*. At the churning yesterday at 12 o'clock, good butter was made from sweet milk in three minutes. We understand that the proprietors are rapidly disposing of the rights for the different states, and it seems to us to afford an admirable opportunity for a safe and profitable investment.—*North-American and U. S. Gazette*.

Anthony & Emerson's Double-Acting Rotary Churn, the advertisement of which will be found in another column, is an invention which has attracted a great deal of attention and commanded universal commendation for its simplicity and the extraordinary rapidity with which it performs its work, producing butter from the milk in about three minutes time. Those who examine it will be struck with amazement that anything so exceedingly simple should not have been thought of before.—*N. Y. Courier and Inquirer*.

Double-Acting Rotary Churn.—This is one of those simple inventions which are calculated to be very useful, because they are truly labor-saving. We have seen butter made in three minutes from milk bought in our streets, which was not likely to be very pure.—*Daily Sun*.

Revolution in Churning.—We learn that Messrs. Anthony & Emerson, the fortunate inventors of the *Double-Acting Rotary Churn*, advertised in this paper, have opened an office for the disposal of rights and churns, at 2 John street, New York, where they are creating an extraordinary sensation among the dairy men and farmers of the interior, who flock to examine the invention, and who universally agree to its great superiority over any other butter-making affair now in existence. Did we not feel fully assured of the superiority of this great labor-saving invention, we should scarcely refer to it so frequently; but having observed it quite carefully, we heartily recommend it to our agricultural readers.—*American Courier*

The public are invited to call and examine the machine, and see its utility tested. It combines the following valuable qualities :—

1st. It produces more butter from the same amount of milk or cream, than the ordinary method, as it does its work in a more thorough and scientific manner.

2d. It is the cheapest, simplest, and most convenient churn ever invented, embodying the true philosophical principles of butter-making.

3d. New milk, after being churned, is sweet, and suitable for family use.

4th. Instead of feeding the calf with milk direct from the cow, churned sweet milk will answer every purpose. By this process the butter is all profit!

5th. It is a great labor-saving machine. By simply turning a crank, butter is produced from fresh milk in from three to six minutes, and from cream in less time. (It requires longer time to produce butter if the cream is cold. The best temperature is 65°.)

6th. It acts upon philosophical principles.

The butter is produced by the introduction of the *mechanical and chemical action of the air*. By the revolution of the dasher, the air is forced between the globules of the cream upon the one side, and the production of a vacuum on the other, sucks up the particles of cream by the cavities causing a breaking up of the globules, and a separating of the *fatty or butter* particles of the cream from the buttermilk, or more fluid portions, producing more butter from the same amount of milk or cream than any other churn, for the simple reason that it does its work in a more thorough manner.

We offer it upon the following terms:—If the churn does not prove as recommended, it may be returned, and the money will be refunded.

We have constantly on hand, and for sale, five different sizes, prices \$3, \$4, \$5, \$6 and \$12, capable of churning at one time, 1½, 3½, 5½, 10 and 20 gallons of milk or cream. Also, churns of any size made to order.

Exclusive county rights to manufacture and sell in the states of New York and New Jersey, for sale at about the rate of one hundred dollars for each 10,000 inhabitants.

A churning takes place every day, at 12 o'clock, at our Warehouse, 2 John street, where every one interested is invited to call.

A discount of 25 per cent. is allowed to the trade.

All orders, *postage paid*, addressed to the subscriber, will be promptly attended to.

T. DOUGLASS, Agent,
No. 2 John street, cor. of Broadway, New York City.

CAUTION!

AS certain houses in this city are in the habit of selling Agricultural and Horticultural Implements, and Field and Garden Seeds, representing them as coming from our establishment, the public is cautioned to be on their guard against imposition. All implements and parcels, sold by us, which it is possible to mark, will be found branded "A. B. Allen & Co., 189 and 191 Water street, New York."

When designing to call at our warehouse, please to be careful and look for the right numbers, as above, otherwise impositions may be practised upon the unwary.

A. B. ALLEN & CO.,
189 and 191 Water street, New York.

CASTINGS MADE TO ORDER.

GIN-GEAR SEGMENTS, of all sizes, furnished at short notice, at low prices.

BURR MILLSTONES of any size; PATENT BURR MILLS, from 12 to 30 inches in diameter; also, Nicholls' and Marsh's Burr Mills, 12 to 30 inches in diameter.

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